



# West Virginia Purchasing Division

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.

Solicitation Response(SR)

Dept: 0310

ID: ESR10141400000000519

Ver.: 1

Function: New

Phase: Final

Modified by batch , 10/14/2014

## Header



## General Information

Contact

Default Values

Discount

Document Information

Procurement Folder: 24643

SO Doc Code: CEOI

Procurement Type: Central Purchase Order

SO Dept: 0310

Vendor ID: 000000205511



SO Doc ID: DNR1500000016

Legal Name: CMA ENGINEERING

Published Date: 10/1/14

Alias/DBA:

Close Date: 10/14/14

Total Bid: \$0.00

Close Time: 13:30

Response Date: 10/14/2014



Status: Closed

Response Time: 11:08

Solicitation Description: ADDENDUM NO 1-Wildlife Management A/E services

Total of Header Attachments: 0

Total of All Attachments: 0



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

**State Of West Virginia  
 Solicitation Response**

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Date issued	Solicitation Closes	Solicitation No	Version
	2014-10-14 13:30:00	SR 0310 ESR10141400000000519	1

**VENDOR**

000000205511

CMA ENGINEERING

**FOR INFORMATION CONTACT THE BUYER**

Dean Wingerd  
 (304) 558-0468  
 dean.c.wingerd@wv.gov

**Signature X**

**FEIN #**

**DATE**

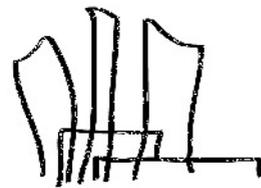
All offers subject to all terms and conditions contained in this solicitation

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
1	Architectural engineering	0.00000	LS		

Comm Code	Manufacturer	Specification	Model #
81101508			

**Extended Description :** Architectural, Engineering, and construction administration and monitoring services for two storage buildings for DNR Wildlife Management Areas. One for Elk River WMA (Braxton County) and one at Handley WMA (Pocahontas County).

**EOI**  
**WEST VIRGINIA**  
**DIVISION OF NATURAL RESOURCES**  
**WILDLIFE RESOURCES SECTION**  
**STORAGE BUILDINGS FOR ELK RIVER AND**  
**HANDLEY WILDLIFE MANAGEMENT AREAS**  
**DNR1500000016**



Matthew Echard, PE  
*ingenieur* Büro





602 Virginia St. E. Suite 102  
Charleston, WV 25301  
Phone: 304.343.9080  
Email: Aric@MargolisArch.com

October 14, 2014

Department of Administration, Purchasing Division  
2019 Washington Street East  
Charleston, WV 25305-0130

Dear Review Committee:

Aric Margolis Architecture and its selected design team is pleased to have the opportunity to submit this proposal for providing architectural / engineering services for the proposed storage building at Elk River Wildlife Management Area and Handley Wildlife Management Area. We feel confident our design team is uniquely qualified to provide design services for the project and feel a team approach between WV DNR and its architects / engineers is the key to the successful completion of your project.

Aric Margolis Architecture is pleased to present a proposal outlining technical expertise, management, staff capabilities and experience for providing high quality architectural services. Our approach will offer advantages in methodology and delivery that will guarantee the success of your project both now and for years to come. My firm is capable of providing full architectural design services and has a long list of sub-consultants that provide civil, structural, mechanical and electrical engineering services to complete the design package. I have provided full architectural design services to multiple State Agencies. During that time, I have had the opportunity to complete many building designs as represented in the enclosed profiles.

As with many architectural firms in West Virginia, Aric Margolis Architecture has teamed with consultants for the required various trades to provide the owner with a complete turnkey project. These consultants have been selected based on past performance, design expertise and familiarity with the region to provide a cost affective, efficient and reliable team. The team consists of Postesta and Associates for Civil / Site design services. ingenieurBüro will provide Structural Engineering services. CMA Engineering will provide Plumbing, Mechanical and Electrical Engineering services. Their profiles are included in this package.

Teamwork is the spirit and foundation of a successful project. We acknowledge the importance of a quick turnaround and excellent quality of services which our administrative procedures, overall organization and depth of experience provides you. As you will see from our resumes and company experience, we are uniquely qualified to offer the professional services required and to ensure that your project becomes a success. We want to emphasize that your project is very important to our design team and look forward to personally discussing our qualifications to complete this project to the very highest standards, on time and within budget. Should you have any questions regarding this proposal, please do not hesitate to contact us.

Sincerely,

Aric L. Margolis, AIA



#### about

Aric Margolis Architecture, PLLC was founded in the Fall of 2012. Aric has worked in the field of architecture for over 18 years and has a tremendous amount of experience in a variety of areas and in different capacities. A native Charlestonian, Aric's office is conveniently located in the historic Woodrums Building in downtown Charleston. Aric is licensed to practice in West Virginia, Kentucky and is NCARB certified, allowing licensure in other states. Aric has worked on projects throughout the State of West Virginia. He is dedicated to enhancing the beauty of our state through his craft, and he loves what he does for a living. Aric earned a Bachelor of Environmental Design in Architecture from the University of Colorado. While at Colorado, he entered the Denmark International Study program and spent 6 months studying in Europe. Aric also earned a Bachelor of Architecture from North Carolina State University and returned to West Virginia in 1996. Aric has served on the City of Charleston Municipal Planning Commission since 2002. He is also past members of the Friends of Clay Center Board, Big Brothers Big Sister Myrtle Beach Dinner Dance, and Museum in the Community.

#### design approach

Aric Margolis Architecture, PLLC believes in client-centered representation. Flexible and accessible, Aric will work tirelessly to ensure client satisfaction. Aric feels design is not a one size fits all. Every project brings unique situations. It is important to listen and understand the problems before coming to the solution. All projects must begin with a development of a compilation of the needs and wants of the client. Through dialogue, the owner and architect create an understanding of the important parameters within a project. Within those parameters, the Architect is charged with developing aesthetically pleasing, cost-conscious solutions.

#### collaboration

Like most architectural firms, Aric has developed strong relationships with several engineering firms. He considers all talented firms and tailors firm selections based on the specific project.

**COMMERCIAL • MEDICAL • EDUCATIONAL • RETAIL • RELIGIOUS • MULTIFAMILY • RESIDENTIAL**

ARIC MARGOLIS ARCHITECTURE, PLLC 602 VIRGINIA ST. E SUITE 102 CHARLESTON, WV 25301

p. 304.343.9080 email: Aric@MargolisArch.com



# PROJECT PROFILES

602 VIRGINIA ST. E SUITE 102  
CHARLESTON, WV 25301  
p. 304.343.9080  
email: Aric@MargolisArch.com  
www.MargolisArch.com



## St. Johns United Methodist Church

New Multi-Purpose Building & Entrance

13,200 Square Feet of New + 26,800 Square Feet of Renovated Construction

The church was in need of expanded facilities. This project re-purposed existing space in order to save cost so that a new Multi-purpose building could be constructed. Project is currently under construction  
Aric Margolis Architecture, PLLC was the Project Architect



## CAMC: Parking lot Expansion

New 185 Car Parking lot

Aric Margolis Architecture oversaw the Coordination, Bidding & Construction of the much needed parking lot expansion for CAMC. Project also used rain garden principals to minimize effects of run-off

Aric Margolis Architecture, PLLC was the Project Architect



## Glenville State College: Goodwin Hall

New 6 Story - 484 Bed Residence Hall

120,566 Square Feet

This project, built on a steep hill, was constructed of light gauge steel framing as well as load bearing concrete and steel framing. The project provided much needed, updated housing for the campus. Construction Cost over \$20 million  
Aric Margolis was Project Architect while at Associated Architects.

photo not available

## DNR: Cabwaylingo

KITCHEN & DINING HALL

3062 Square Feet

New construction of Dining Hall and Kitchen replacing previous structure that was too dated to be renovated

Aric Margolis was Project Architect while at Associated Architects.



## Glenville State College: Pioneer Center

2 Story, 120,000 Square Feet

3000 seat gymnasium and education building

This project was a new multi-purpose facility housing locker rooms, Athletic offices, weight room, indoor walking track, presidents suite and semi-attached 2 story education building.

Aric Margolis was Project Architect while at Associated Architects.



# PROJECT PROFILES

602 VIRGINIA ST. E SUITE 102  
CHARLESTON, WV 25301  
p. 304.343.9080  
email: Aric@MargolisArch.com  
www.MargolisArch.com



## University of Charleston: East Hall

New 4 Story - 49 Apartments & 524 car parking

This project provided new apartment style housing and much needed parking for the Campus. The design wrapped the apartment building around 3 sides of the parking structure while maintaining the campus aesthetics. Each floor of the garage aligns with the apartment floors, allowing for direct access. Aric Margolis was Project Manager while at Associated Architects.



## Charleston Medical Center Housing Corporation

Jefferson Place

24 Unit Apartment Building .

This complex serves resident doctors for CAMC. Project incorporated materials from the surrounding neighborhood to give it a classic feel. Aric Margolis was Project Manager while at Associated Architects.

Other notable projects while at Associated Architects:

As Project Architect:

- University of Charleston: Renovations for New Physicians Assistant program
- CAMC Orthopedic Trauma Group: 8000 Square Feet expansion of existing Office Space
- Dr. Grant Mason: Renovation to existing facility for Dental office
- Raleigh Regional Cancer Center: Renovations to existing building
- Crestview: New 3 Story, 48 - Unit Apartment Building, 49,473 Square Feet
- Willow Tree II: New 3 Story, 48 - Unit Apartment Building, 47,581 Square Feet
- Lowenstein Building: Renovations to historic building for Commercial & Residential use
- Kanawha Stone: New 2 Story Office Building
- Dollar General Washington St. E: New Retail Store
- Raleigh Mall: Demolition and Renovation to Existing Facility

As Project Manager:

- University of Charleston: Middle Hall - 5 Story - 240 bed residence hall, 62,715 Square Feet
- DEP: New 3 Story - 120,000 Square Feet Office Building, LEED Silver
- University of Charleston: Ratrie Hall - 4 Story - 180 bed residence hall, 47,352 Square Feet
- B'nai Jacob Synagogue: - 1 Story addition used for Meeting & Dining Space
- Marshall University Parking Garage: 5 Story - 1009 car parking
- Joe Holland Service Center: 1 Story 44,000 square foot service center
- Northgate Business Park: Sports Medicine, Ticketmaster, Thrasher Engineering, Forbes Building

References:

Tom Ratliff - Glenville State College - Director of Facilities - 304.462.6241  
Cleta Harless - University of Charleston - VP Admin. & Finance - 304.357.4736  
Karen Seim - CAMC - Property Management - 304.388.9660

# RESUME

**Aric L. Margolis**

AIA, NCARB  
Principal, Owner



## Professional Experience

Aric Margolis Architecture, PLLC  
Principal, Owner (August 2012 - Present)

Associated Architects, Inc.  
Project Architect (1996 - 2012)

## Education

Bachelor of Architecture  
North Carolina State University - 1996

Bachelor of Environmental Design in Architecture  
University of Colorado - 1994

Denmark's International Study Program in Architecture - 1993

## Organizations

Licensed Architect - West Virginia, Kentucky  
American Institute of Architects  
National Council Architecture Registration Board

## Community Service

City of Charleston - Municipal Planning Commission: 2002 - Present  
Past Member:  
Friends of Clay Center Board;  
Museum in the Community Board;

## Significant Projects:

Aric Margolis Architecture, PLLC:

- SJUMC: 13,200 SF New Multipurpose Bldg & Entry, 26,800 SF of renovation
- CAMC: Enlarged 185 Car parking lot

As Project Architect at Associated Architects:

- Glenville State College: New 6 Story - 484 bed residence hall, 120,566 SF
- Glenville State College: New Performance Gym & Education Building, 130,704 SF
- CAMC Northgate: Office building for Information Services and other dept, 69,000 SF
- University of Charleston: Renovations for New Physicians Assistant program
- Lowenstein Building: Commercial & Residential renovations to historic building.
- Smith Motors: Renovation and Additions for Mercedes and Land Rover Dealerships

As Project Manager at Associated Architects:

- University of Charleston: East Hall & Parking garage - 49 Apartments, 524 cars
- Equity House: Renovations to 5 story historic building downtown for office use
- Jefferson Place: 24 Unit Apartment Building for CMCHC
- University of Charleston: Middle Hall - 5 Story - 240 bed residence hall, 62,715 SF
- DEP: New 3 Story - 120,000 Square Feet Office Building, LEED Silver
- Marshall University Parking Garage: 5 Story - 1009 car parking
- Northgate Business Park Multiple Projects:  
Sports Medicine, Ticketmaster, Thrasher Engineering, Forbes Building



Matthew Echard, PE  
Structural Engineering Consultants



*ingenieur* **Büro**

# about our 'ingenieurbüro'...

\,en-jə-'nir 'byür-(,)ō \

Translated directly from modern German, the 'ingenieurbüro' is our engineering office. It implies a bright, open space... a canvas where ideas take shape.

In 2010, after ten years in engineering design, business, and construction, Matthew Echard started an independent engineering practice with the philosophy that a building's value is drawn from many contexts. This concept was the birth of our *ingenieurbüro*. Our primary role and core service are as **structural engineers**. We work closely with both architects and owners to develop carefully tailored solutions for performance and value expectations.



We also collaborate directly with specialist consultants — from sustainability and building physics, to fire engineering and façades — to provide informed feedback while identifying novel mechanics within the building dynamic. We work diligently — in multiple markets, here and abroad — in an effort to discover new building performance spaces and reinvent the built environment. **It is our passion.**

Ultimately, we seek to create **a better quality of life** for those who inhabit our designs. A successful building should derive organically from the needs of its end-users. To this end, architecture, planning, and engineering must work in concert to develop the intersection of the functional and the livable. It is this commitment to the collaborative work process, this sensitivity to the human condition, that we offer our clients.

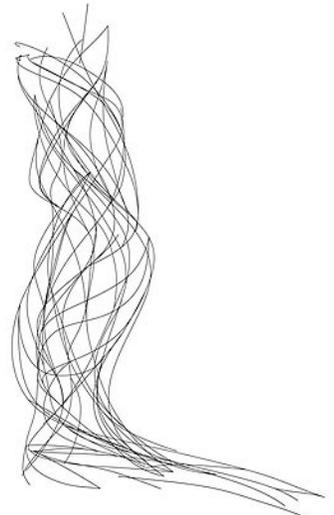
We invite you to explore your ideas with us. Welcome to our *ingenieurbüro*.

**BOLD IDEAS.**  
Unique Structures.

*Dubai, United Arab Emirates*

CONCEPT SKETCH:

Competition piece for a new emblem structure in the heart of Dubai, akin to the Eiffel Tower of the Middle East. Combined massing and envelope profile concept.



# looking forward.

Here in the Mountain State, we have seen tremendous growth over the past ten years. While the economies of other states are retreating, West Virginia continues to experience a booming energy sector, investment in new technologies, and a renewed commitment to education. This growth affords an opportunity to create new, modern spaces and yet challenges us to retain the common culture and values that define our mountaineer heritage.

West Virginia truly is a Wild and Wonderful state. Wherever my projects have taken me, West Virginia has always been home. In the coming months, I look forward to having an honest conversation about our future and how to build for the next generation of Mountaineers.

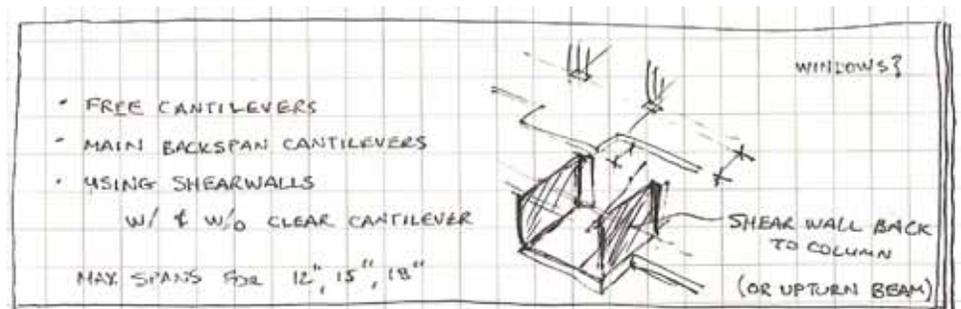
Montani Semper Liberi.

Matthew Echard

Matthew Echard, PE

structural engineering • planning • technical consulting

explore.  
invent.  
design.



Concept Hand Sketch

Extended Cantilever - Concrete Floor & Shearwall System:  
Working with the façade and programming teams, the architect wanted to explore feature concepts like the office "pop-out" at left. Steel composite columns were already setback 7ft [2.1m] from the slab edge to create perimeter circulation corridors.

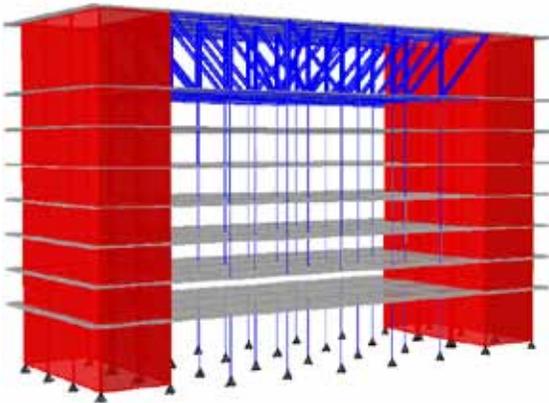




# SERVICES

## Structural Engineering

- Building Design - Concept thru CD
- Structural Dynamics & Vibration
- Performance-Based Design
- Structural Fire Performance
- Complex Geometry
- Advanced Materials
- Delegated Design Articles
  - Steel Connections
  - Steel Stairs
  - Guardrails/Handrails
- Forensic Investigation
- Construction Administration
- VE / Value Engineering
- Peer Review



*Boston, Massachusetts*  
 Overtruss hanger system concept:  
 Steel trusses spanning between concrete cores on each end of a lab building. Intermediate floors are suspended from the trusses above via steel hanger columns, providing a column-free first floor space.

## Pre-design and Planning

- Existing Structure Surveys
- Concept Development
- Performance Criteria Development
- Option analyses
- Code compliance



*Los Angeles, California*  
 Schematic design charette for pedestrian bridges.

## Technical Consulting

- Failure Analysis
- Forensic Study
- Peer Review
- Litigation Support
- Reverse-engineering



*Stuttgart, Germany*  
 Working with architects and façade specialists to develop integrated building envelope concepts.





# SECTORS



*Neiman-Marcus Expansion — Copley Place Mall, Boston, MA*  
Air-rights project over I-90 and light rail corridor.



*Harvard University First Science — Allston, Boston, MA*  
Bio-science research & teaching lab. 920,000 ft<sup>2</sup> [85,000 m<sup>2</sup>]



*TAJ Mall — Amman, Jordan*  
Indoor/Outdoor Mall and parking. 1.6M ft<sup>2</sup> [150,000 m<sup>2</sup>]

## COMMERCIAL

- Multi-story
- Mid- & High-rise
- Retail
- Office
- Hotel
- Fitness / Active
- Exterior Features
- Canopies

## Mixed-Use

## Tech / R&D

- Design Space
- Biotech Labs
- Data Centers
- Labs

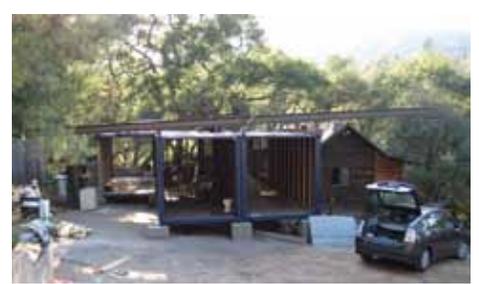
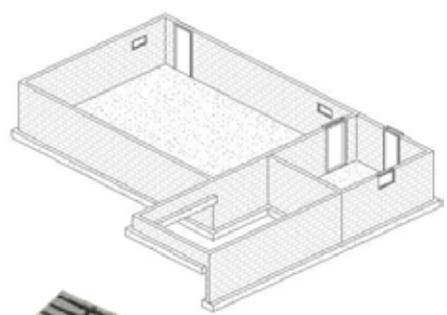
## RESIDENTIAL

### Single-family, detached

- new homes
- garages
- additions
- foundations
- renovations
- structural inspections

### Townhomes (multi-family)

### Apartments (multi-unit, multi-story)



*Container House — Topanga Canyon, California*  
Modern POD design using retrofitted shipping containers. Dramatic, long-span cantilever roof in near-fault seismic zone.



*"Terrena" 19600 Plummer St — Northridge, California*  
Mixed-use retail and apartment community. 485,000 sf.





# SECTORS

## GOVERNMENT / INSTITUTIONAL

### Education

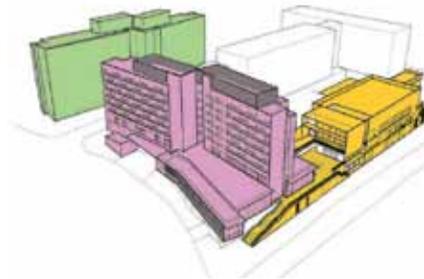
- K-12
- Higher Ed
- Sports Facilities & Gymnasiums

### Hospitals & Clinics

### Emergency Facilities / Critical Infrastructure



Capshaw-Spielberg Center for Arts and Educational Justice — Santa Monica, California



Falmouth High Class of 2012  
Falmouth, Cape Cod, Massachusetts

## SPECIALTY MARKETS

### Energy

- Coal - support facilities
- Natural Gas - support facilities
- Solar - collection facilities, adaptive design (e.g. carports)

### Historic Preservation

- Adaptive Reuse
- Restoration & Rehabilitation

### Special Structures

- Performing arts facilities
- Outdoor Art / Sculptures
- Museum Exhibits
- Complex Geometry



Museum of Contemporary Art — Los Angeles, California  
Aluminum and Glass "CUBE" display case. Extensive seismic analysis and anchor design. Mass-sensitive, optimized model.





## Matthew Echard PE

### Principal

Matthew launched the ingenieurbüro [*engineering office*] in 2010 with the idea that clients deserve intelligent, performance-based engineering solutions. Having completed several marquee projects across the United States, Europe and the Middle East, he returned to his home state of West Virginia to provide world-class service to growing markets in an historically underserved region. Among his projects, Matthew places a large value on holistic design and the collaborative work process, believing that a building's form and function are derived from many contexts. He believes structural engineering transcends many spaces, from architecture and energy planning to security and lifecycle cost management. His current research areas include sustainable design, energy-efficient structural systems, and advancing the use of innovative building technologies in current design practice.

#### Disciplines

Structural Engineering, Project Mgmt.

#### Experience

14 years

#### Qualifications

**SM (cd.)** Civil Engineering, Massachusetts Institute of Technology  
**BS (Hons)** Civil Engineering, West Virginia University

#### 2010 - Present

##### **Matthew Echard (ingenieurBüro)**

Weyerhaeuser OSB Plant (Sutton, W.Va.)  
UCLA Sproul Residence Halls (Los Angeles, CA)  
Herb Alpert Educational Village - Phase 1 (Santa Monica, CA)  
Psomas Solar Carports (Orange Co, CA)  
19600 W. Plummer Street Apartments (Northridge, CA)

#### 2006 - 2009

##### **Buro Happold Consulting Engineers (Los Angeles, Dubai, Riyadh)**

King Abdullah Financial District - 2.09, 2.14, 4.07/4.08 (Riyadh, KSA)  
Hotel America Tower and Residences (Dubai, UAE)  
The Buildings by Daman (Dubai, UAE)  
Harvard University First Science (Boston, MA)  
Continuities of the Incomplete - Museum of Contemp. Art (Los Angeles, CA)  
Container House (Topanga Canyon, CA)  
The Buildings by Daman (Dubai, UAE)  
Al Taj Abodoun Mall (Amman, Jordan)

#### 2003 - 2006

##### **RISA Technologies (Boston, MA and Orange Co, CA)**

Senior Project Engineer. Autodesk Revit Platform Interface  
Regional Technical Engineer. Northern US Training, Sales and Tech Support

#### 2000 - 2003

##### **Zaldastani Associates, Inc. (Boston, MA)**

Columbus Center, Parcel 16 Tower (Boston)  
Logan International Airport (BOS), Central Parking (Boston)  
Case Western Reserve University Dormitories (Cleveland, OH)  
Falmouth High School and Gymnasium (Cape Cod, MA)  
Neiman-Marcus Expansion, Copley Place Mall (Boston)  
Astra-Zeneca Storage Study (Westborough, MA)  
Palladium @ Kenmore Sq (Boston)





06



01



03



03



03

# Selected Projects

## 01 Columbus Center - Parcel 16

*Boston, Massachusetts, USA*

Architect CBT (Boston, MA)  
Services Concept & Scheme Design <sup>1</sup>

## 02 Hotel America

*Dubai, UAE*

Architect Graft Architects (Berlin, Germany)  
Services Concept & Schematic Foundations <sup>2</sup>

## 03 King Abdullah Financial District Parcels 2.09, 2.14, 4.07/4.08

*Riyadh, KSA (Saudi Arabia)*

Architect FXFowle (New York)  
Services Design Project Mgmt. (A/SMEP+) <sup>2</sup>

## 04 Harvard First Science

*Boston, Massachusetts, USA*

Architect Behnisch Architekten (Stuttgart, Germany)  
Services Concept Design thru CD <sup>2</sup>

## 05 The Buildings by Daman

*Dubai, UAE*

Architect Perkins+Will (Washington, DC)  
Services Seismic Validation (DD phase) <sup>2</sup>

## 06 Boston Logan International Airport Central Parking

*Boston, MA, USA*

Architect TAMS; Fennick/McCredie (Boston, MA)  
Services Retrofit, Concept thru CD; Peer Review <sup>1</sup>

## 07 Continuities of the Incomplete (2.0)

*Museum of Contemporary Art  
Los Angeles, California, USA*

Architect Morphosis Architects (Santa Monica, CA)  
Services Concept Design thru CD <sup>2</sup>

## 08 County of Orange Solar Canopies

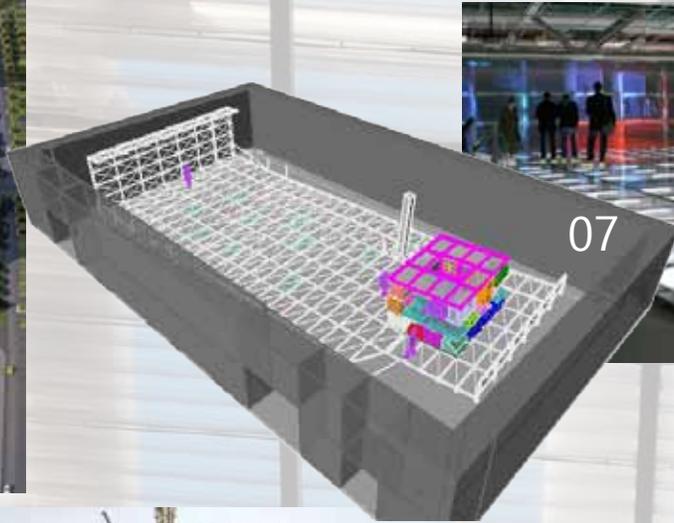
*Orange County, California, USA*

Architect Permacity/Mangan JV  
Services Concept Design thru DD

## 09 "Terrena" 19600 W. Plummer St Apartments

*Northridge, California, USA*

Architect TCA - Thomas P. Cox Architects  
Services Metal Stairs Concept Design thru CD



# Selected Projects



*Parcels 407 & 408  
King Abdullah Financial District  
Riyadh, Kingdom of Saudi Arabia*

contact

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Sand Fork, WV 26430  
UNITED STATES

tel +1 304 641 5560

web [www.engineerburo.com](http://www.engineerburo.com)

rev 3 03/2014



*ingenieur* Büro

## Services

**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 new West Virginia Consolidated Department of Environmental Protection 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 AP BD+C) and we incorporate the most efficient and sustainable "green" designs in all of our projects.



WVNG Lewisburg Readiness Center



Diamond Electric Warehouse Addition

## History

CMA Engineering has provided engineering design services on numerous projects of varying size and complexity. Clients include architects, contractors, developers, engineers, governmental agencies 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 projects budget.

## Commitment

Present staffing allows CMA to complete work in a timely manner without limiting our ability to perform our on-going work. The staff of CMA is large enough to handle any size project, yet small enough for direct input and supervision by key personnel.

## Experience

CMA Engineering has extensive experience in the design and construction administration of new construction projects. We have also provided design for multiple WV DNR projects. Projects include the electrical upgrades to Canaan Valley Ski Resort, new cabins, bathhouse, camping sites and sewage treatment system at Beech Fork State Park, electrical upgrades to the Lodge at Cacapon State Park and mechanical, electrical and plumbing design for the Lodge and Conference Center at Chief Logan State Park.

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

# M E C H A N I C A L

CMA Engineering experience includes:

Constant Volume Air Handling Systems

Variable Volume Air Handling Systems

Demand Control Ventilation Systems

Natorium 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



*(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



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.cma.wv.com](http://www.cma.wv.com)

# E L E C T R I C A L

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



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



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

**CMA**  
ENGINEERING

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.cma.wv.com](http://www.cma.wv.com)

## P L U M B I N G & P I P I N G

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



*(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



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Davis Memorial Hospital

P.O. Box 1484

Elkins, WV 26241

Contact: Steve Johnson

(304) 637-3129

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

(304) 624-3325

Mylan Pharmaceuticals

P.O. Box 4310

Morgantown, V 26505

Contact: Mr. J. J. Dotson

(304) 599-2595

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## Timothy L. Cox, P. E., CBCP

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

### 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 CM Engineering, brings 30 years of mechanical and plumbing design experience to our clients. Timothy is a Certified Building Commissioning Professional through Association of Energy Engineers.

### Project Experience

#### Davis Memorial Hospital

New 70,000sf Outpatient and Physicians Office Addition  
Facility Main Boiler Replacement  
Laundry Facility Renovation

#### WV Department of Corrections

St. Mary's Correctional Facility-Additions and Renovations  
Industrial Home for Youth- Renovations and Upgrades  
Martinsburg Eastern Regional Jail- Renovations and Upgrades

#### West Virginia University-Open End Contract since 1999

Coliseum Life Safety Renovations  
New Soccer Stadium  
New Wrestling Training Facility  
Engineering Science Building Addition & Renovations

#### Military Experience

New Moorefield Readiness Center  
New Elkins Readiness Center  
Gassaway Armory Addition & 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. Renovations include laundry facility renovations, Mylan Beads Facility chiller loop replacement and various mechanical, electrical and plumbing upgrades to the Main Plant, QC facility, Solvent Storage and Collins Ferry Facility.

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## Daniel L. Ellars, P. E., LEED 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 for CMA Engineering, brings 25 years of electrical design and project management experience to our clients.

### Project Experience

#### Recreational Facilities

Summit Bechtel National Scout Reserve-Electrical Site Utilities  
Canaan Valley Ski Resort Electrical Upgrades to Ski Lift

#### Educational Experience

New Talcott Elementary School  
New Fairdale Middle School  
Chamberlain Elementary-Elevator Addition  
East Bank Middle School HVAC and Lighting Renovations  
New Pikeview Middle School  
Nitro High School Commons Area Renovations

#### 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

#### WV Department of Transportation

New District 1 Administration Building  
New District 8 Administration Building  
Statewide Facilities Electrical Analysis

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## **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  
ASHRAE  
WV Society of Healthcare Engineers

### **Experience**

Matthew Corathers, mechanical engineer, has nine years of experience in design and project management.

### **Project Experience**

#### **West Virginia University**

New two-story Child Care Facility  
Engineering Science Building– Laboratory Renovations

#### **Housing**

Genesis Youth Facility-New Facility  
Fairfield Inn-New Marriott

#### **Hospital Experience**

Davis Memorial Hospital-New Addition  
United Hospital Center-New MRI facility  
VA Hospital, Clarksburg, WV-Renovations to Dental Lab  
Mercer County Nursing Home-Addition

#### **Military Experience**

WVNG New Moorefield Readiness Center  
WVNG Gassaway Armory Renovations  
WVNG St. Albans Armory Addition & Renovations  
WVANG Helicopter Fueling Renovations

#### **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

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## 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 20 years of mechanical and plumbing design and project management experience to our clients.

### Project Experience

#### Residential

Silver Tree Suites, Deep Creek, MD  
Jefferson Place, Charleston, WV  
Red Spruce Townhouse  
Greenbrier Sporting Lodge

#### WV Department of Highways

New District 1 Administration Building  
New District 8 Administration Building

#### Military Facilities

St. Albans Armory Addition and Renovations  
Gassaway Armory Renovations  
New Elkins Readiness Center  
New Moorefield Readiness Center

#### Emergency Response Facilities

Randolph County 911-New Facility  
Mason County 911-New Facility  
Raleigh County 911-New Facility  
Orchard Manor Fire Station-New Facility

#### Commercial Experience

Bobcat of Advantage Valley-New Facility  
Allegheny Springs Restaurant  
J. C. Penney Piping Analysis

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### **White Sulfur Springs Fire Station**

CMA Engineering provided design of HVAC, plumbing, fire sprinkler and fire alarm systems, communication systems, lighting and electrical power for new 7,800sf facility.



### **WVNG Lewisburg Readiness Center**

CMA Engineering provided mechanical, electrical and plumbing design services for a 37,000sf readiness center that includes a vehicle maintenance bay. Construction cost \$6,700,000.



### **Bridgeport Public Safety Substation**

CMA Engineering provided design of HVAC, plumbing, fire sprinkler and fire alarm systems, communication systems, lighting and electrical power for the new 15,000sf facility that houses both the fire and police departments. The facility is a two-story building on one end with a high bay fire truck section and adjacent one story service space.



### **Northview Fire Station, Clarksburg, WV**

CMA Engineering provided design of HVAC, plumbing, fire sprinkler and fire alarm systems, communication systems, lighting and electrical power for renovations to 7,000sf existing office facility and new connected garage facility of 7,300sf.

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### **Bridgeport Public Safety Substation**

CMA Engineering provided design of HVAC, plumbing, fire sprinkler and fire alarm systems, communication systems, lighting and electrical power for the new 15,000sf facility that houses both the fire and police departments. The facility is a two-story building on one end with a high bay fire truck section and adjacent one story service space.



### **Kanawha County Schools Bus Garage**

CMA Engineering provided mechanical, electrical and plumbing design services for the addition of a third school bus maintenance bay (1,092sf) at the Elkview Garage.



### **Deep Creek Maryland Volunteer Fire Department**

CMA Engineering provided design of mechanical, plumbing, electrical (power and communications/data and security systems), fire alarm and fire sprinklers systems for the 4,500sf vehicle bay addition to the existing Fire Department facility.



### **St. Albans Armory**

CMA Engineering provided mechanical, electrical and plumbing design services for the renovation of 16,407sf of a single story facility and a single story addition of 13,940sf 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.

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### **WV Parkways & Tourism Maintenance Building, Beckley, WV**

CMA Engineering provided mechanical, electrical and plumbing design services for new pre-engineered building to house nine vehicles for storage and one wash bay. Engineering services also included renovations to existing wash bay and vehicular maintenance shop.

### **Joe Holland Chevrolet, South Charleston, WV**

CMA Engineering provided design services for new 48,000sf pre-engineered metal building with second floor storage, site development, masonry and drywall partitions, administrative and shop space, overhead doors, heating, cooling and electrical systems.

### **Nicholas County Sheltered Workshop, Craigsville, WV**

CMA Engineering provided mechanical, electrical and plumbing design services for new pre-engineered building, with an approximate square footage of 9,300 on first floor and a mechanical mezzanine of 2,900sf.



### **Diamond Electric, Eleanor, WV**

CMA Engineering provided mechanical, electrical and plumbing design services for new 17,000 sf pre-engineered building, to be used as additional warehouse space complete with four new loading docks.



### **Bobcat of Advantage Valley, Cross Lanes, WV**

CMA Engineering provided mechanical, electrical and plumbing design services for new 10,300sf pre-engineered building, to be used as office space and maintenance shop.



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### **Silver Tree Suites, Deep Creek, MD**

CMA provided mechanical, electrical, plumbing, fire protection and fire detection design services for new 30,000sf residential complex consisting of four floors.



### **Chief Logan State Park**

CMA Engineering provided mechanical, electrical, plumbing and fire protection design services for the new lodge and the new conference center.



### **Snowshoe Mountain Resort**

CMA Engineering provided design for HVAC, electrical, plumbing, fire alarm and fire sprinkler systems for new Allegheny Springs Lodge. CMA also provided engineering services for the fit-out of such restaurants as the Foxfire Grille, Junction Restaurant and Village Bistro located at the Village in Snowshoe.



### **Camp 4, Snowshoe, WV**

CMA Engineering provided mechanical, electrical, plumbing and fire protection design services for townhouse complex consisting of four buildings with four 1,600sf units per building.



### **Jefferson Place, Charleston, WV**

CMA Engineering provided mechanical, electrical, plumbing and fire protection design services for new medical apartment complex consisting of 24 units of one, two and three bedroom apartments.

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Unit A



Ski Rescue Patrol



Unit B

CMA Engineering provided the electrical designs and specifications for the renovations and upgrades for the winter ski facilities at Canaan Valley Resort and Conference Center. The improvements included interior remodeling of three of the existing buildings for skier services and support adjacent to two of the three main lift stations, plus a new skier warming and rest station for the relocated tube run park. Interior remodeling work included lighting, HVAC and plumbing fixture replacements. Exterior work included renovations of an outdoor plaza for skiers with pole lights and a fire pit. Two new skier conveyors were added at the site, one for a new beginners slope area and one for the new tube run park. Exterior, weatherproof, pad-mounted 480-volt, three-phase switchgear was installed at the base of the two main lifts to serve the new conveyor, site lighting and new snow making equipment for the ski slopes and at a water booster pumping station at the mid-point elevation. Similar switchgear and a transformer were installed to serve the new buildings at the tube run park, site lighting, conveyor and snowmaking equipment for the tube run slopes. New exterior lighting fixtures and hinged poles were installed adjacent to the new conveyors to provide night use of the facilities. Two existing 208-volt, three-phase power services were upgraded for the improvements. Power services for the existing buildings were upgraded to provide both ground-fault and surge protection. CMA worked closely with Monongahela Power, the local power utility, on the power services and improvements and coordinated with another electrical design consultant at the site to provide new fiber-optic telecommunications services between the ski area facilities and the Park's main lodge while other renovations were in progress at the lodge.

Owner Contact: Bradley S. Leslie, P.E.  
WV Division of Natural Resources  
(304) 558-2764 Ext. 51823

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



**Engineering • Mining • Remediation • Oil & Natural Gas • Environmental**



## 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 43725  
(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, and surveyors.

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.

### 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. has a significant body of work in site design for residential, commercial and industrial clients. Projects range from power plant siting to subdivision design. We have assisted numerous developers and development agencies with the creation of business industrial parks throughout West Virginia, and have been part of design teams for elementary, secondary and collegiate projects primarily associated with new building construction.

Our staff of civil, environmental, and geotechnical engineers; surveyors and environmental scientists can provide the following site planning and design services.

- Surveying – Topo and Boundary
- Base Mapping from Aerial Photography
- Geotechnical Engineering
- Land Planning
- Environmental Issues Evaluation and Mitigation
- Site Grading
- Vehicular and Pedestrian Circulation
- Utility Design
- Site Features
- Stormwater Management Plans

Some clients who have used our site design services include:

- West Virginia Development Office
- Development Authorities: Tucker, Wood, Roane and Hardy Counties
- Bright Enterprises
- Charleston Area Alliance
- University of Charleston
- Timberwolf Development Corporation
- West Virginia Department of Environmental Protection
- West Virginia Division of Natural Resources
- Marshall University
- Architects: Associated Architects; Bastian & Harris, Architects; SEM Partners; ZMM



**POTESTA & ASSOCIATES, INC.**

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Regional Offices: Morgantown, WV; Winchester, VA; and Cambridge, OH

# POTESTA & ASSOCIATES, INC.

## *Civil Engineering and Design*

Potesta & Associates, Inc. (POTESTA) helps clients evaluate and plan projects by completing the following types of preliminary evaluations and analyses.

- Phase I Environmental Site Assessments
- Floodplain Determination
- Geotechnical Explorations Including Soil, Bedrock, and Groundwater Characterization
- Foundation Recommendations
- Monitoring Well Systems and Site Characterization Plans
- Boundary, Topographical and Photogrammetric Surveys
- Utility Planning
- Earthwork Evaluations Including Volume Analysis
- Opinion of Probable Costs/Engineer's Construction Cost Estimates

Once the project has been determined feasible, POTESTA's design professionals complete preliminary and final designs. Frequent communication is made with the client and any other design professionals to review completed activities and obtain input for the design process. Our goal is to provide our services to achieve or exceed our clients' expectations.

Our design services include:

- Erosion and Sediment Control Plans
- Earth Retaining Structures Design
- Geometric Site Layout
- Grading and Drainage Plans, Including Excavation and Fill Optimization
- Access Road Design
- Hydraulic Structure Design
- Water and Sewer Design
- Slope Stability Analysis
- Subsurface Drainage System Design
- Construction Drawings, Specifications and Contract Document Preparation

POTESTA offers experienced environmental engineers and scientists to prepare applications for various environmental permits that may be required. These services include:

- Stormwater Management Permit/Erosion and Sediment Control Plans
- Office of Air Quality Permit to Construct
- Wetland Delineation and Permits
- National Pollutant Discharge Elimination System (NPDES) Permits
- Floodplain Management Permits
- Groundwater Protection Plans
- Spill Prevention, Control and Countermeasure Plans
- Environmental Site Assessments
- Environmental Impact Statements

POTESTA routinely provides professional services throughout construction of our projects. These services include survey layout, construction management, construction monitoring, record drawing preparation, and bid evaluation assistance.



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# POTESTA & ASSOCIATES, INC.

## *Geotechnical Engineering*

Potesta & Associates, Inc.'s (POTESTA) engineers and geologists have extensive experience related to the geotechnical engineering and geological disciplines. These areas include subsurface explorations, monitoring well and piezometer installations, foundation design recommendations, slope stability analysis, retaining walls, and remedial designs as they relate to construction, mining, waste disposal, environmental remediation, and other projects.

### **SUBSURFACE EXPLORATIONS**

POTESTA's diverse staff of engineers and geologists is experienced in the many different facets of subsurface explorations. Our usual procedure is to attend an initial meeting with the client to establish requirements and expectations, conduct a preliminary site reconnaissance, and develop a recommended exploration program for your review and approval. Supplemental information from the local area is then obtained from readily available sources to assist the engineer or geologist in making final recommendations.



POTESTA can provide field engineers and geologists who are knowledgeable using the latest technologies to assist in collecting and analyzing samples. Our knowledge of the proper procedures and familiarity with local conditions allows office

and field personnel to adjust the exploration plan if unanticipated field conditions are found.

Our staff is familiar with the following items which can be associated with subsurface exploration:

- Drilling and Rock Coring Techniques (augers, rotary bits, Geoprobe™, etc.)
- Sample Collection Methods (split spoons, shelly tubes, Geoprobe™ sleeves, etc.)
- Classification and Logging of Soil and Rock Samples
- Monitoring Well and Piezometer Installation

### **SLOPE STABILITY ANALYSIS AND REMEDIAL DESIGN**

Slope stability is often a major concern during the design and construction phases of many projects, especially those located in the Appalachian terrain. POTESTA's engineers are familiar with the various methods utilized to predict slope stability and are capable of performing the related analyses. Slope stability is critical for many projects such as analysis of existing or proposed soil embankments, rock fills, dam analysis and design, landfill design and operation, assessing the causation of slope failure, and designing remedial measures. Analyses can involve circular or sliding block methods, interface friction angles, and estimation of the strength parameters of the soil or rock. Slope stability analyses are performed on one of the most technologically advanced computer programs available and can be modified using site specific data.

POTESTA's engineers can also develop preventive measures during initial project design or recommendations to repair slope failures. Based upon the project circumstances, our engineers will consider various remedial measures such as regrading the site to obtain more suitable conditions, management of groundwater, and design of retaining structures. Our staff is familiar with a wide variety



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of retaining structures, including gabion baskets, soldier beam and lagging walls, sheet piles, reinforced concrete and reinforced earth slopes.



## **FOUNDATION DESIGN RECOMMENDATIONS**

POTESTA's staff has experience with various types of foundations and will recommend the appropriate type of foundation given the anticipated application and site conditions. The different types of foundations with which our staff is familiar are spread and strip footings, steel piles, auger-cast concrete piles, drilled piers, and reinforced mats.

Preliminary foundation design recommendations and cost analyses are commonly performed during the initial phases of a project to assist in determining project feasibility. As project planning progresses, the preliminary alternatives will be revised into a final recommendation which can then be incorporated into the project's construction documents or developed as an independent package for presentation to the contractor.

The final recommendation can include construction drawings, technical specifications, recommendations for allowable bearing capacity, engineer's construction cost estimate, and contractor's bid sheet.



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# POTESTA & ASSOCIATES, INC.

## *Surveying and Mapping*

Our surveyors are experienced in many aspects of surveying such as topographic mapping, boundary surveys (rural/farms, city lots, and subdivisions), ALTA surveys, control surveys, flood certificate surveys, well location surveys, construction surveys for layout of work, record drawings, and quantity measurements. Related areas include courthouse research, preparation of right-of-way plans, and verification of property owners. Potesta & Associates, Inc. (POTESTA) has licensed professional surveyors registered in West Virginia, North Carolina, South Carolina, Ohio, Virginia, and Pennsylvania. Their total combined surveying experience comes to well over 50 years.

POTESTA's surveyors use state-of-the-art equipment such as Topcon total stations, Trimble R-8 GNSS, and SMI data collectors with SMI software. Autodesk Civil 3D reduction and design software is used.

POTESTA is equipped with modern surveying instruments, allowing efficient data processing and accurate gathering of field information. Total station instruments equipped with data collectors are utilized for complete field-to-office automation allowing for high levels of productivity in the field. The latest versions of software are then used to process survey data and create drawings or required end products. These products can be supplied to our clients in AutoCAD and/or Microstation format.

Small topographic mapping projects can be completed in-house using the aforementioned process. Larger projects are better suited for mapping using aerial photography.

POTESTA can provide the necessary surveying required for establishing ground control for aerial mapping. As a quality control measure, aerial mapping is field checked for accuracy by surveying cross sections or random points.



Surveys completed by POTESTA are performed by or under the direction of a professional licensed surveyor. Surveys and mapping are completed to the standards outlined by the National Map Standards, as well as other applicable quality standards.

Our staff is experienced in global positioning surveys (GPS). GPS equipment, Trimble R-8 GNSS, and existing base stations are among POTESTA's surveying tools. Based upon the site location and ultimate use of the survey information, a recommendation is made to the client as to whether or not traditional survey or GPS is most applicable to their project.



### **POTESTA & ASSOCIATES, INC.**

7012 MacCorkle Avenue, SE, Charleston, West Virginia 25304

Phone: (304) 342-1400 • Fax: (304) 343-9031 • [www.potesta.com](http://www.potesta.com)

Regional Offices: Morgantown, WV; Winchester, VA; and Cambridge, OH

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 contractor selection. 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.



Potesta & Associates, Inc. (POTESTA) offers its clients exceptional expertise and experience when it comes to the permitting process, including all phases of application preparation, negotiations, modifications, compliance and renewal at all levels of government. Our permit services cover air, mining (coal and quarries), water and waste disposal permits.

### **AIR**

Our firm offers complete air permitting and consulting services to assist industry in complying with today's complex air quality regulations. Our staff has experience in identifying, characterizing and permitting air pollution sources for a variety of industries, including:

- Coating Operations
- Petroleum and Petrochemical Operations
- Chemical Manufacturing
- Manufacturing Facilities
- Mining
- Quarries
- Natural Gas Compressor Stations
- Electric Utilities

Our air quality experts have comprehensive knowledge of federal, state and local regulations, as well as experience in complex Title V applications. Our services include identification of potential air pollution sources, development of control strategies, preparation of permit applications, emissions inventories, compliance audits and regulatory liaison.

At both the state and federal levels, we help clients interpret and comply with air regulations, including the New Source Performance Standards (NSPS) and National Emissions Standards for Hazardous Air Pollutants (NESHAPS). We can suggest emissions control strategies to meet both current and anticipated regulations, including BACT, MACT and LAER.

### **MINING**

In recent years, mining permits have become increasingly complex, requiring diverse expertise in mining techniques, engineering, environmental regulations, benthic studies, hydrogeology and hydrology. Our staff has broad experience in providing innovative solutions to various mining problems.



Although the objective of a permit application is to receive agency approval in a timely manner, the client does not benefit if the application does not allow for effective operations. We work with our clients to ensure that your operational needs are met while allowing for essential flexibility. Several members of our staff have mining industry experience, and they understand the requirements vital to an effective operation.

From the beginning of the permit process, POTESTA involves the reviewing agency to allow its concerns to be addressed prior to submittal of the application. Often, this reduces the amount of review comments and revisions which could slow the approval process. Our thorough knowledge of the various phases and requirements of the permitting process, coupled with our technical



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expertise, may facilitate the approval of permits that are operation based and thus more acceptable to you.

Our staff members have the knowledge and expertise to develop modification submittals that are timely and cost effective. We can also expedite permit renewal applications with minimal input from our busy clients.

## **WATER**

The Clean Water Act regulates the discharge of pollutants into surface water through the National Pollutant Discharge Elimination System (NPDES). POTESTA has extensive experience in water permitting projects, including industrial and municipal wastewater and storm water discharges.

Perhaps the most important aspect of the permitting process is determining the approach most beneficial to the client. Our personnel are familiar with both state and federal permitting strategies and can provide capable guidance for appropriate and applicable permits for a project.

Our staff specializes in reviewing facility wastewater flows and recommending methods of minimizing or eliminating these discharges. Our knowledge of alternatives for wastewater management can save clients money and potential liability.

We can help the client decide which type of permit coverage is required for a given project. Also, with our thorough understanding of state and federal wastewater permitting, we have been able to renegotiate numerous draft permits to achieve more acceptable requirements.

POTESTA can prepare a draft NPDES permit for submission to the appropriate agency. This gives the client more input regarding the permit requirements. Our personnel are experienced in permit writing and will work closely with agency staff to ensure that the permit meets both regulatory requirements and the needs of our clients.

## **WASTE**

POTESTA is highly knowledgeable of the challenges faced in receiving a permit to allow proper disposal and/or use of your waste products. Our staff has experience with municipal and industrial solid waste and construction demolition waste and hazardous waste. They have designed landfills, transfer stations, recycling facilities, closure plans and corrective action plans.

We have experience in:

- Bioremediation
- Resource Recovery
- Sludge Handling/Stabilization
- Utilization of Coal Combustion By-products
- Construction Monitoring/Management

Our staff of civil, geotechnical, environmental and mining engineers; geologists; hydrogeologists; biologists and surveyors strives to obtain the maximum flexibility for your facility, whether it is a new operation, the modification of an existing facility, or a permit renewal. Regulatory liaison assistance is a key component in our efforts.



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# PRE-FABRICATED METAL BUILDING TUCKER COUNTY INDUSTRIAL PARK

*Tucker County Development Authority  
Davis, West Virginia*

Potesta & Associates, Inc. (POTESTA) was retained by the Tucker County Development Authority (TCDA) to develop a site plan and associated construction drawings and documents to allow for a 6,000 square foot, pre-fabricated metal building to be placed within the Tucker County Industrial Park located along WV State Route 93 near Davis, West Virginia. Assistance with funding for this phase of the project was previously performed by POTESTA under a separate contract.



Services included preparation of several conceptual plans for review by the TCDA and then completion of a civil/site plan, utilities, associated permitting, and preparation of Contract Bidding Documents and Construction Drawings for the project. Evaluation of bids received, as well as limited construction observation activities were also performed during construction.

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*Project Abstract*

# **KENNA RIDGE BUSINESS PARK**

## **Double C Enterprises/Jackson County Development Authority**

### ***Kenna, West Virginia***

Potesta & Associates, Inc. (POTESTA) was retained by Double C Enterprises and the Jackson County Development Authority to prepare a site development plan and to perform permitting, geotechnical design and construction survey stakeout services for an approximately 65-acre development near Kenna, West Virginia.

POTESTA prepared the topographic mapping for the project from ground survey information. The project included the design of four valley fills and a single side hill fill to accommodate approximately 740,000-cubic yards of excavated soil and rock.

The fill locations were evaluated for geotechnical stability following the completion of test pits and borings. Project staff completed environmental permitting for the project including the preparation and submittal of NPDES construction stormwater permits and U.S. Army Corps of Engineers Section 404 permits.

POTESTA also prepared access roadway plans for the business park entrance. This work was coordinated through the West Virginia Division of Highways to meet current design standards for the Jackson County Development Authority. POTESTA personnel provided daily construction observation of construction efforts involving survey stakeout, soil density testing and sediment pond installation.



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*Project Abstract*

# **ALPHA ASSOCIATES, INC. GEOTECHNICAL EVALUATION FOR R. E. MICHEL BUILDING**

*Morgantown, Monongalia County, West Virginia*

Potesta & Associates, Inc. (POTESTA) was retained by ALPHA Associates, Inc. of Morgantown, West Virginia to provide geotechnical related services for the R. E. Michel building now located on the northern side of the intersection between WV State Route 705 and US Route 119, along “The Mileground” in Morgantown, West Virginia. A one-story commercial structure with associated parking and loading/unloading facilities was placed on the property, which was previously used by West Virginia University’s agricultural college as a cornfield.



Four soil borings were completed as part of our scope of the project and to aid in foundation recommendations. Soil depth was between 18 inches and 5 feet, with auger refusal occurring in sandstone bedrock.

In addition to soil boring activities and foundation recommendations, POTESTA performed a limited review of available information relative to coal mining activities. Based on information from the West Virginia Geological Survey (WVGS), the Pittsburgh

coal seam underlies the project site. This seam is typically 5 to 8 feet thick, although areas around Morgantown exhibit seam thickness in excess of 10 feet. According to information gathered from the WVGS, as well as discussions with WVGS personnel, the project area has no records indicating it to be undermined; but given the historical nature of coal mining in the area, it is likely that a portion of the site has been mined. To further review the undermining extent, and the likelihood for subsidence potential, further subsurface exploration, down-hole camera work, and additional research would be necessary. However, given the fact that the building is metal framed, a more forgiving structure to vertical displacements, and the hard sandstone that generally overlies the Pittsburgh seam, no additional services were requested of POTESTA.

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# WEST VIRGINIA WATER DEVELOPMENT AUTHORITY OFFICE BUILDING

*Associated Architects, Inc.  
Charleston, West Virginia*

Potesta & Associates, Inc. (POTESTA) was retained by Associated Architects, Inc. to prepare a site topographic survey/utility mapping, geotechnical exploration and foundation recommendations report, civil site design, and permitting for a proposed 14,500 square foot, two-story office building and parking lot. The proposed development was on Pfaff and Smith's existing 2.75-acre site located on the corner of Bullitt Street and Spring Street and along the bank of the Elk River in Charleston, West Virginia.

POTESTA prepared the topographic mapping for the project from ground survey information. The project also included the exploration of four subsurface borings to collect samples for laboratory testing.

During the project, POTESTA was able to help overcome difficult construction obstacles associated with main utility feeds located along the old Elk River road utility corridor. The parking lot was designed with security in mind and included a rod iron fence that completely enclosed the lot and included automated gates with remote access from within the building. POTESTA also prepared landscaping plans for the building and parking lot areas.



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*Project Abstract*

# **ENGINEERING SCIENCES BUILDING, EAST WING ADDITION**

## **ALPHA Associates**

*Morgantown, West Virginia*

POTESTA was retained by ALPHA Associates, Inc. of Morgantown, West Virginia to provide geotechnical engineering services for the East Wing Addition to the Engineering Sciences Building for the West Virginia University College of Engineering and Mineral Resources. The existing Engineering Sciences Building (ESB), located on the Evansdale Campus in Morgantown has a history of problems due to pyrite in the geologic strata below the building.



The multiple story addition contained a total footprint of approximately 9,963 square feet. Subsurface exploration involved soil boring totaling 146 feet and rock coring of 240 feet through 23 total boring locations. Foundation alternatives considered included spread footings and deep foundations. Ultimately, deep foundations (caissons) were utilized and measures were taken to reduce the potential issues that could occur due to the expansive pyrite found within the geologic strata on which the building addition is located. The project loading was complex as it is a multiple story structure with floor elevations and associated foundation elements at three different levels. The structure also included integral retaining walls that were evaluated for potential stresses due to potential vertical and horizontal pressures from the expansive pyrites.



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# UNIVERSITY PLACE PARKING GARAGE

*Paradigm Architecture/University Place, LLC/WVU  
University Avenue, Morgantown, West Virginia*

Potesta & Associates, Inc. (POTESTA) was retained by the owner/developer and the architect to provide civil engineering design services for the University Place Parking Garage in Morgantown, West Virginia. The 8-story, 35,720-square-foot parking garage structure will include 497 parking spaces, 3 ground-level retail locations, and is situated on University Avenue. The Parking Garage (pictured below) will accommodate parking for the University Place/West Virginia University (WVU) Student Housing (shown right) and includes two entrances from public roadways, multiple retaining walls, underground storm water retention system, as well as retail patios, pedestrian access, and landscaping.



Specific services provided by POTESTA on this project included:

- Surveying - topographic mapping, property and right-of-way boundaries, and utility locations.
- Grading plan including cut/fill for the building site, integrated Civil 3D/Revit modeling, entrance/roadway design, retail patio and pedestrian access design, ADA compliant sidewalk ramp and crosswalk design.
- Storm water collection system design including underground retention system, water quality units, curb inlets, catch basins, and connection to the City of Morgantown's existing storm water system.
- Utility extension/connection designs including sanitary sewer, storm sewer, potable water, and fire service.
- Permitting and coordination services including coverage of site development through WVDEP Construction Storm Water Permit, Morgantown Utility Board's MS4 Storm Water Permit, City of Morgantown right-of-way coordination, as well as coordination with the owner, architect, structural engineer, and contractors.
- Technical Specifications including storm water piping, subdrainage, earthwork, concrete and asphalt paving.
- Construction administration services including pre-bid meetings, pre-construction meetings, shop drawing submittal review, site progress meetings.



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*Project Abstract*

# **THIRD AVENUE PARKING GARAGE**

## **Marshall University**

### *Huntington, West Virginia*

Potesta & Associates, Inc. (POTESTA) worked under contract to Bastian & Harris, Architects to prepare topographic mapping for the site of a proposed parking garage facility on the campus of Marshall University in Huntington, West Virginia. POTESTA also completed a boundary survey of the various parcels planned for development as well as performing a preliminary geotechnical exploration of the site.

Site mapping development included the location of buried site utilities, limits of WVDOH and City of Huntington right-of-ways and 1 foot topographic contours based on a site ground survey. Collected field survey information was tied to the existing campus coordinate system. POTESTA contacted all the utility providers maintaining utilities at the site to ensure that all existing buried utilities were located. Surveyors then located the utilities for placement and coordination with the final site mapping. In addition to the preparation for the site mapping, POTESTA surveying personnel also completed a boundary survey of the property. Final plats and deed descriptions were prepared and submitted to the University for their use in finalizing the funding structure of the project.



The geotechnical exploration included the completion of eight subsurface borings to determine the subsurface conditions underlying the site. Several of the borings were completed to refusal on bedrock to allow for the evaluation of deep foundation alternatives. Soil and rock samples were collected from the individual borings and tested to determine strength criteria. A preliminary report indicating the results of the drilling program, as well as the results of the laboratory analyses, was prepared.

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# **WEST RUN STUDENT HOUSING**

## **West Run Student Housing Associates, Inc.**

### ***Morgantown, West Virginia***

Potesta & Associates, Inc. (POTESTA) was retained by West Run Student Housing Associates, Inc. of Pittsburgh, Pennsylvania to provide environmental consulting services as well as civil and geotechnical engineering for the West Run Student Housing project located at Morgantown, West Virginia. This proved to be a complex grading/site design project, as it involved 944 student beds in 17 buildings and more than 1,000 parking spaces, plus a clubhouse and basketball courts.

The site is approximately 20 acres in size and most of the property is on a natural 20 percent slope. POTESTA's services included roadway design and permitting, including upgrade of approximately 1/4 mile of a county road; storm water management and permitting, including conveyance systems, a storm water management pond and erosion and sediment control; and site design, including building placement and conceptual design of more than 50,000 square feet of segmental retaining walls. The site also includes a reinforced soil slope that reaches more than 35 feet in height and is more than 800 feet in length.



Other project services performed by POTESTA included a Phase I Environmental Site Assessment, and evaluation of a coal seam located on the property, geotechnical drilling and recommendations, an ALTA survey, preparation of contract and bidding documents, and construction administration.

The project design was completed on an accelerated schedule to allow the developer to secure financing and begin construction within a few months after receiving a purchase option on the project. The construction phase of the project has been sequenced to allow for occupancy of the first seven buildings within eight months after the contractor received notice to proceed.

The first phase of the project is to be completed in 2007, while the anticipated completion date is 2008.

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## **EDUCATION**

- M.S. Civil Engineering, 1979  
West Virginia University
- B.S. Civil Engineering, 1978  
West Virginia University

## **EMPLOYMENT HISTORY**

- 1997-Present Potesta & Associates, Inc.  
1994-1997 Terradon  
1979-1994 GAI Consultants, Inc.  
1978-1979 West Virginia University  
1976-1977 West Virginia Department of Highways  
(summers)

## **PROFESSIONAL REGISTRATION**

Professional Engineer – West Virginia, Illinois

## **PROFESSIONAL CERTIFICATION**

40-Hour Health and Safety Training

## **PROFESSIONAL AFFILIATIONS**

American Society of Civil Engineers  
National Society of Professional Engineers  
WV Association of Consulting Engineers

## **AREAS OF SPECIALIZATION**

Management of design and permitting of civil, environmental, geotechnical, and mining engineering projects. Siting, design, and permitting of industrial and municipal waste disposal sites; reclamation of abandoned mine lands; and development of stormwater management plans and groundwater sampling programs. Environmental/reclamation liability assessments. Development of site plans for commercial and industrial facilities including hydrologic and hydraulic analyses. Expert witness testimony.

## **PROFESSIONAL EXPERIENCE**

### **Vice President of Engineering**

Directs engineering division including day-to-day operation of headquarters and three branch offices concerning staffing, coordination, training, business development; safety education and overall management of technical and support staff concerning water and waste water, municipal, solid waste management, hazardous waste management; geotechnical, general civil and environmental engineering; mining and reclamation, etc.

### **Former Consulting Experience**

Vice President of Engineering (Terradon Corporation) and Branch Manager (GAI Consultants) within the consulting engineering industry with the responsibility of overall management of office including technical and support staff. Mr. Burns directed design, staffing, coordination, training, business development; safety education and overall management regarding the office's expertise within water and waste water, municipal, solid waste management, hazardous waste management; geotechnical, general civil and environmental engineering; and mining and reclamation disciplines.

# CHRISTOPHER A. GROSE

*Senior Engineering Associate, Licensed Remediation Specialist*



## EDUCATION

- M.S. Geological Engineering, 1990  
University of Missouri-Rolla
- B.S. Civil Engineering, 1988  
West Virginia Institute of Technology

## EMPLOYMENT HISTORY

- 1997-Present Potesta & Associates, Inc.  
1994-1997 Terradon Corporation  
1990-1994 GAI Consultants, Inc.  
1989-1990 University of Missouri-Rolla  
1989 Triad Engineering Consultants  
(summer)
- 1988 West Virginia Institute of Technology  
1983-1988 Clint Bryan & Associates Architects  
(summers)

## PROFESSIONAL REGISTRATIONS

Licensed Remediation Specialist – West Virginia

## PROFESSIONAL CERTIFICATIONS

Hazardous Waste Site Operations and Superfund Worker Protection Training  
American Red Cross Standard First Aid and CPR  
Troxler Moisture-Density Gauge

## PROFESSIONAL AFFILIATIONS

American Society of Civil Engineers  
Association of Engineering Geologists  
Society of America Military Engineers

## AREAS OF SPECIALIZATION

Surface and subsurface hydrology and hydrogeology including ground subsidence, contaminant transport and groundwater flow modeling, hazardous waste remediation, including CERCLA/SARA, RI, and FS report compilation, geological and geotechnical aspects of siting and design of municipal and industrial waste landfills, foundation recommendations, and cut slope designs in soil and rock.

## PROFESSIONAL EXPERIENCE

### Geotechnical

Responsible for the design, management, and inspection of a geotechnical investigation of a proposed five mile rail extension located in Nicholas County, West Virginia. Investigation included study and design of planned rock cuts, and track foundation materials.

West Virginia Department of Environmental Protection – Foundation design for a proposed 100,000 gallon potable water storage tank and valve pit near Cassidy, West Virginia.

Preparation of foundation investigations for several large structures including a parking garage and student housing complex at Marshall University, Huntington, West Virginia. Tasks included development of a subsurface exploration program, soils/rock sampling and testing program, as well as a preparation of a final geotechnical report.

Rhone Poulenc Ag Company – Subsurface sample collection, resistivity measurements, explosivity measurements, and decontamination procedures for an organic contamination study at Institute, West Virginia.

### ESAs (Phase I, II, and III)

Responsible for the design and implementation of drilling and sampling programs for several Phase I and Phase II environmental assessments.



## **EDUCATION**

- 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

## **PROFESSIONAL REGISTRATION**

Professional Engineer – West Virginia, Pennsylvania, Maryland, Ohio, and Kentucky

## **AREAS OF SPECIALIZATION**

Involved in 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 and hydraulic design, transportation/highway projects, including geotechnical and right-of-way plans, and municipal water and wastewater projects.

## **PROFESSIONAL EXPERIENCE**

### **Civil/Site Design**

Project Manager/Engineer on numerous projects involving most aspects of site development. Involvement has included civil/site design, geotechnical aspects, hydrology/hydraulics, permitting, erosion/sediment control/permitting, etc.

- West Run Student Housing – 1,000 bed student housing project in Morgantown, West Virginia
- Copper Beach – 1,000 bed student housing project in Morgantown, West Virginia
- Summit at Cheat Lake Residential Development in Morgantown, West Virginia
- WVU Beechhurst Parking Lot in Morgantown, West Virginia
- Morgantown Technical Services Industrial Expansion in Mt. Morris, Pennsylvania
- Jos' Globe Floodplain Development in Morgantown, West Virginia
- Churchhill Village Complex in Morgantown, West Virginia

### **Geotechnical**

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 in Keyser, West Virginia
- WVU Engineering Sciences, East Wing Addition in Morgantown, West Virginia
- Suncrest Executive Office Plaza and Parking Garage in Morgantown, West Virginia
- Morgantown Waterfront Marina in Morgantown, West Virginia
- West Run Student Housing in Morgantown, West Virginia
- Sunoco Service Station in Robinson Township, Pennsylvania



## EDUCATION

A.S. Land Surveying, 1983  
Glennville State College

## EMPLOYMENT HISTORY

1998-Present	Potesta & Associates, Inc.
1993-1998	Dunn Engineers
1998-1993	Woolpert Consultants
1986-1988	W.K. Dickson and Company
1986	Clary-Miller and Associates
1985-1986	William F. Knight Land Surveying
1984-1985	Morris Exploration Company
1983-1984	William F. Knight Land Surveying
1981-1983	Columbia Gas Transmission Company

## PROFESSIONAL REGISTRATION

Registered Land Surveyor – North Carolina, South Carolina, West Virginia

## PROFESSIONAL AFFILIATIONS

North Carolina Society of Land Surveyors  
South Carolina Society of Land Surveyors  
West Virginia Association of Land Surveyors  
American Congress on Surveying and Mapping  
West Virginia Association of Land Surveyors, Greater Kanawha Valley Chapter, President 2003  
West Virginia Society of Professional Surveyors, Board of Directors 2005-2006

## AREAS OF SPECIALIZATION

Expert Witness/Case Preparation and Accident Surveys, ground control, construction stakeout, topographic mapping, boundary and property surveys including ALTA surveys, and construction surveys for layout of work, record drawings, and quantity measurements. Related areas include courthouse research, location/verification of utilities, preparation of right-of-way plans, and verification of property owners.

## PROFESSIONAL EXPERIENCE

### Surveying

Office, Business, and Industrial

- Wal-Mart – Construction layout for parking, roadways, curb and gutter, and utilities for new store in Barboursville, West Virginia.
- National Lumber Plant Site – Crew Chief/Survey Supervisor for boundary and topographic survey, construction stakeout for plant site in Roane County, West Virginia.
- BIDCO – Boundary and topographic survey of several parcels in the development and stakeout of spec building and parking lots in Kanawha County, West Virginia.

Construction Stakeout

- Charleston Federal Building – Crew Chief/Project Manager for staked foundation, anchor bolts, interior and exterior wall lines in Charleston, West Virginia.
- Courthouse Parking Building – Crew Chief for staked foundation and wall lines in Charleston, West Virginia.

ALTA Land Title Surveys

- Coolfont Resort – Project Manager for boundary survey on 920 acres in Morgan County, West Virginia.
- Pison Development – Crew Chief/Project Manager for ALTA survey and construction layout for six housing development in Kanawha, Mason, Randolph, and Ritchie Counties, West Virginia.
- Emmanuel Baptist Church – Crew Chief/Project Manager for church in Charleston, West Virginia.



## **EDUCATION**

- B.S. Civil Engineering, 2002  
West Virginia University Institute of Technology
- A.S. General Science, 2000  
West Virginia University

## **EMPLOYMENT HISTORY**

- 2003-Present Potesta & Associates, Inc.  
2001-2002 WV Dept of Transportation District 3-  
Design/Field Inspector

## **PROFESSIONAL REGISTRATION**

Professional Engineer – West Virginia

## **PROFESSIONAL CERTIFICATION**

40-Hour Hazardous Waste Training  
Troxler Nuclear Density Equipment Operator

## **AREAS OF SPECIALIZATION**

Involved in many areas of civil engineering. Project responsibilities include civil site design, hydrologic and hydraulic design, grading plans, water line plans, sewer line plans, roadway layout, utility design, and stormwater management plans.

## **PROFESSIONAL EXPERIENCE**

### **Civil/Site Design**

Development of grading plans, cut/fill analysis, utility design/layout, engineer's cost estimates, preparation of permit applications, consulting with clients, architects, regulatory agencies, and municipalities.

- Pison Development – 10 apartment complex projects
- Double C Enterprise – Kenna Ridge Business Park
- Tricor Development – Hurricane Market Place Parcels A and B
- Green Eagle Development – four residential site development projects
- Ervin Development – Woodstock commercial site development project
- MDG Development – Oakland subdivision

Detailed design, preparation of construction drawings, technical specifications, cost estimate, contractor's bid documents, review and recommendation of contractor's bids, and review of shop drawings,

Tucker County Industrial Park – water and sewer line expansion

ZMM – Bradshaw High School project

Dunlap Builders – West Run Student Housing

Allegheny Energy Supply's Fort Martin Power Station – fly ash landfill expansion project

### **Flood Studies/Storm Water Management**

Development of hydraulic modeling of watersheds for existing and proposed conditions to determine flood levels and the impact on the properties of local residents, overseeing of cross sectional surveying and mapping development. Project's scope included fill within the floodplain, new residential and commercial development within the floodplain, obtaining the original computer model of floodplain data from the United States Army Corps of Engineers, and coordination with local floodplain manager.

Pison Development – Mineral Manor apartment complex

Cooper Beech – townhouse development project

Jo's Globe Distribution – expansion project

Blue Ridge Builders – Cheat Landing Development



## **EDUCATION**

- B.S. Civil Engineering, 2011  
West Virginia University
- B.A. Environmental Geosciences, 2007  
West Virginia University

## **EMPLOYMENT HISTORY**

- 2011-Present Potesta & Associates, Inc.  
1999-2011 Potesta & Associates, Inc.  
(summers)

## **PROFESSIONAL CERTIFICATION**

Troxler Moisture Density Gauge

## **AREAS OF SPECIALIZATION**

Civil Engineering with a focus in geotechnical engineering, slope stability analysis, civil/site design, construction monitoring, and soil compaction testing.

## **PROFESSIONAL EXPERIENCE**

### **Geotechnical**

Working involving boring location layout, slope stability design, preparation of samples to laboratory, foundation recommendations, soil and rock visual classification, and soil slope reviews and recommendations.

- Pribble Tank Landslide Repair
- Potts Pad Landslide
- Huntington Giger Street Slip
- Potoczny Landslide Repair
- Pleasant Lane Landslide
- MW3 Intersection Landslide
- Vickie Moreland Retaining Wall
- Greer Rowlesburg site design and slip repair
- Bona Vista Retaining Wall
- City of Charleston – Grandview Slip Repair

Columbia Pipeline Partners, LP – Project Manager for geotechnical exploration and foundation recommendations for various Columbia compressor stations.

- Waynesburg, Pennsylvania
- Greencastle, Pennsylvania
- Gettysburg, Pennsylvania
- Strasburg, Virginia
- Files Creek, West Virginia

Aboveground Storage Tank Inspection and Registration for various clients.

### **Civil/Site Design**

Development of grading plans, cut/fill analysis, utility design/layout, engineer's cost estimates, consulting with clients, architects, regulatory agencies, and municipalities.

Stone Energy – Conley Well Pad design  
Antero – Cortese & Lockard Well Pad design  
Stonerise Healthcare – Addition project