



West Virginia Army National Guard

CEOI 0603 ADJ1900000003

Building 301 Renovation (Design) Camp Dawson

RECEIVED

2018 AUG 27 AM 10: 06

WV PURCHASING
DIVISION

McKINLEY
ARCHITECTURE + ENGINEERING

in association with:

 **STAFFORD
CONSULTANTS
INCORPORATED**
Engineering Design and Consulting

&

 **POTESTA**
Engineers and Environmental Consultants

23 August 2018

Stephanie L. Gale
Department of Administration, Purchasing Division
2019 Washington Street East
Charleston, WV 25305-0130

Dear Ms. Gale and Members of the Selection Team,

McKinley Architecture and Engineering, Stafford Consultants, and Potesta & Associates (McKinley Team) have teamed up again to provide the West Virginia Army National Guard, Construction and Facilities Management Office with our Expression of Interest for architectural/engineering services to fully renovate Building 301 at Camp Dawson.

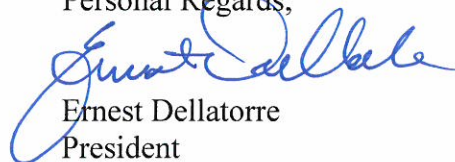
McKinley Architecture and Engineering (McKinley & Associates) is a full-service architectural and engineering firm that has been providing design services since 1981. With offices in Wheeling and Charleston, WV and Pittsburgh, PA, we support a professional staff of **Architects, Engineers, Construction Administrators**, a certified **Interior Designer**, **LEED Accredited Professionals** specializing in **Building Design and Construction**, an **HVAC Qualified Commissioning Process Provider**, and more.

Stafford Consultants, Inc. our **Structural and Civil/Site Engineering consultant**, was founded in 1985 in Princeton, WV. Stafford currently employs a total staff of eighteen, including five registered professional engineers. McKinley & Associates has utilized the services of Stafford Consultants on **dozens** of projects across the State, and in multiple sectors of business; these projects range from new construction to additions and renovations.

Potesta & Associates, Inc. is our **Geotechnical Engineering Consultant**. They were founded in 1997 to provide quality engineering and environmental consulting services to a wide variety of private and public clients in West Virginia and the eastern United States. Their engineers and geologists have extensive experience related to the geotechnical engineering and geological disciplines, have completed similar drilling projects, and their familiarity with local conditions will be beneficial for the National Guard.

We love what we do, so we care about the results you get. We are ready to begin **immediately** and will **meet all your Goals and Objectives**. Thank you for reviewing our submission and considering the McKinley Team for your project.

Personal Regards,



Ernest Dellatorre
President

McKinley Architecture and Engineering



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

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

Proc Folder: 481152

Doc Description: Building 301 Renovation (Design) Camp Dawson

Proc Type: Central Purchase Order

Date Issued	Solicitation Closes	Solicitation No	Version
2018-08-07	2018-08-28 13:30:00	CEOI 0603 ADJ1900000003	1

BID RECEIVING LOCATION

BID CLERK

DEPARTMENT OF ADMINISTRATION

PURCHASING DIVISION

2019 WASHINGTON ST E

CHARLESTON

WV 25305

US

VENDOR

Vendor Name, Address and Telephone Number:

*000000206862

McKinley Architecture and Engineering

32 20th Street - Suite 100

Wheeling, WV 26003

(304) 233-0140

FOR INFORMATION CONTACT THE BUYER

Stephanie L Gale

(304) 558-8801

stephanie.l.gale@wv.gov


Signature X

FEIN # 55-0696478

DATE 23 August 2018

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

DESIGNATED CONTACT: Vendor appoints the individual identified in this Section as the Contract Administrator and the initial point of contact for matters relating to this Contract.



(Name, Title)
Ernest Dellatorre, President

(Printed Name and Title)
32 20th Street - Suite 100, Wheeling, WV 26003

(Address)
(304) 233-0140 | (304) 233-4613

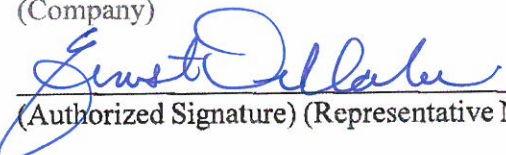
(Phone Number) / (Fax Number)
edellatorre@mckinleydelivers.com

(email address)

CERTIFICATION AND SIGNATURE: By signing below, or submitting documentation through wvOASIS, I certify that I have reviewed this Solicitation in its entirety; that I understand the requirements, terms and conditions, and other information contained herein; that this bid, offer or proposal constitutes an offer to the State that cannot be unilaterally withdrawn; that the product or service proposed meets the mandatory requirements contained in the Solicitation for that product or service, unless otherwise stated herein; that the Vendor accepts the terms and conditions contained in the Solicitation, unless otherwise stated herein; that I am submitting this bid, offer or proposal for review and consideration; that I am authorized by the vendor to execute and submit this bid, offer, or proposal, or any documents related thereto on vendor's behalf; that I am authorized to bind the vendor in a contractual relationship; and that to the best of my knowledge, the vendor has properly registered with any State agency that may require registration.

McKinley Architecture and Engineering

(Company)



(Authorized Signature) (Representative Name, Title)

Ernest Dellatorre, President

(Printed Name and Title of Authorized Representative)

23 August 2018

(Date)

(304) 233-0140 | (304) 233-4613

(Phone Number) (Fax Number)

STATE OF WEST VIRGINIA
Purchasing Division
PURCHASING AFFIDAVIT

CONSTRUCTION CONTRACTS: Under W. Va. Code § 5-22-1(i), the contracting public entity shall not award a construction contract to any bidder that is known to be in default on any monetary obligation owed to the state or a political subdivision of the state, including, but not limited to, obligations related to payroll taxes, property taxes, sales and use taxes, fire service fees, or other fines or fees.

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

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

DEFINITIONS:

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

"Employer default" means having an outstanding balance or liability to the old fund or to the uninsured employers' fund or being in policy default, as defined in W. Va. Code § 23-2c-2, failure to maintain mandatory workers' compensation coverage, or failure to fully meet its obligations as a workers' compensation self-insured employer. An employer is not in employer default if it has entered into a repayment agreement with the Insurance Commissioner and remains in compliance with the obligations under the repayment agreement.

"Related party" means a party, whether an individual, corporation, partnership, association, limited liability company or any other form or business association or other entity whatsoever, related to any vendor by blood, marriage, ownership or contract through which the party has a relationship of ownership or other interest with the vendor so that the party will actually or by effect receive or control a portion of the benefit, profit or other consideration from performance of a vendor contract with the party receiving an amount that meets or exceeds five percent of the total contract amount.

AFFIRMATION: By signing this form, the vendor's authorized signer affirms and acknowledges under penalty of law for false swearing (W. Va. Code §61-5-3) that: (1) for construction contracts, the vendor is not in default on any monetary obligation owed to the state or a political subdivision of the state, and (2) for all other contracts, that neither vendor nor any related party owe a debt as defined above and that neither vendor nor any related party are in employer default as defined above, unless the debt or employer default is permitted under the exception above.

WITNESS THE FOLLOWING SIGNATURE:

Vendor's Name: McKinley Architecture and Engineering

Authorized Signature: *Ernest Delaney*

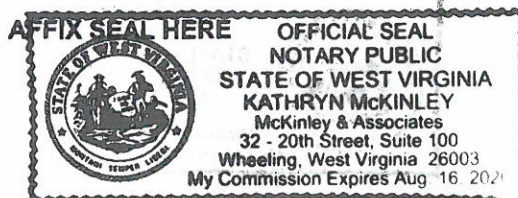
Date: 23 August 2018

State of West Virginia

County of Ohio, to-wit:

Taken, subscribed, and sworn to before me this 23 day of August, 2018.

My Commission expires August 16, 2020.



NOTARY PUBLIC *Kathryn McKinley*

Purchasing Affidavit (Revised 01/19/2018)

West Virginia Ethics Commission
Disclosure of Interested Parties to Contracts

(Required by W. Va. Code § 6D-1-2)

Contracting Business Entity: McKinley Architecture and Engineering **Address:** 32 20th Street - Suite 100
Wheeling, WV 26003

Authorized Agent: Ernest Dellatorre **Address:** (same as above)

Contract Number: CEOI 0603 ADJ1900000003 **Contract Description:** Building 301 Renovation (Design) Camp Dawson

Governmental agency awarding contract: West Virginia Army National Guard, Construction and Facilities Management Office

☐ Check here if this is a Supplemental Disclosure

List the Names of Interested Parties to the contract which are known or reasonably anticipated by the contracting business entity for each category below (attach additional pages if necessary):

1. Subcontractors or other entities performing work or service under the Contract

☐ Check here if none, otherwise list entity/individual names below.

Stafford Consultants
Potesta & Associates

2. Any person or entity who owns 25% or more of contracting entity (not applicable to publicly traded entities)

☒ Check here if none, otherwise list entity/individual names below.

3. Any person or entity that facilitated, or negotiated the terms of, the applicable contract (excluding legal services related to the negotiation or drafting of the applicable contract)

☒ Check here if none, otherwise list entity/individual names below.

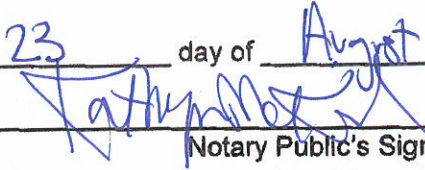
Signature:  Date Signed: 8-23-18

Notary Verification

State of West Virginia, County of Ohio:

I, Ernest Dellatorre, the authorized agent of the contracting business entity listed above, being duly sworn, acknowledge that the Disclosure herein is being made under oath and under the penalty of perjury.

Taken, sworn to and subscribed before me this 23 day of August, 2018.

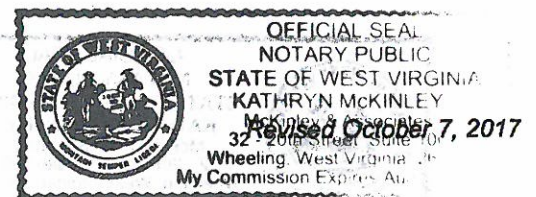

Notary Public's Signature

To be completed by State Agency:

Date Received by State Agency: _____

Date submitted to Ethics Commission: _____

Governmental agency submitting Disclosure: _____





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

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

Proc Folder: 481152

Doc Description: Addendum #1 Building 301 Renovation (Design) Camp Dawson

Proc Type: Central Purchase Order

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BID CLERK

DEPARTMENT OF ADMINISTRATION

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CHARLESTON

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Vendor Name, Address and Telephone Number:

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32 20th Street - Suite 100

Wheeling, WV 26003

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FOR INFORMATION CONTACT THE BUYER

Stephanie L Gale

(304) 558-8801

stephanie.l.gale@wv.gov

Signature X

FEIN # 55-0696478

DATE 23 August 2018

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

ADDENDUM ACKNOWLEDGEMENT FORM

SOLICITATION NO.:

CEOI 0603 ADJ1900000003

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

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

Addendum Numbers Received:

(Check the box next to each addendum received)


- ☒ Addendum No. 1
- ☐ Addendum No. 2
- ☐ Addendum No. 3
- ☐ Addendum No. 4
- ☐ Addendum No. 5

- ☐ Addendum No. 6
- ☐ Addendum No. 7
- ☐ Addendum No. 8
- ☐ Addendum No. 9
- ☐ Addendum No. 10

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

McKinley Architecture and Engineering

Company


Authorized Signature

23 August 2018

Date

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

WV Licenses & Registrations

For your convenience, you will see copies of our key individual's and firm's various licenses & registrations as evidence that we are currently registered in the State of West Virginia. On this page is Ray Winovich's (*your Project Manager / Architect*) Registration and Authorization to Practice Architecture in West Virginia (Certificate #3753). On the pages following, you will see our firm's Certificate of Incorporation, Business Registration Certificate, and Certificate of Authorization for providing Engineering Services in West Virginia. We would be happy to provide you with copies of other Professionals' licenses if you wish to see them. In addition, a listing of all the professionals' certifications, degrees, and licenses are found on their resumes in the "Design Team" tab.

The West Virginia Board of Architects

certifies that

RAYMOND S. WINOVICH

is registered and authorized to practice
Architecture in the State of West Virginia.

In testimony whereof this certificate has been issued
by the authority of this board.

Certificate Number [REDACTED]

The registration is in good standing until June 30, 2019.

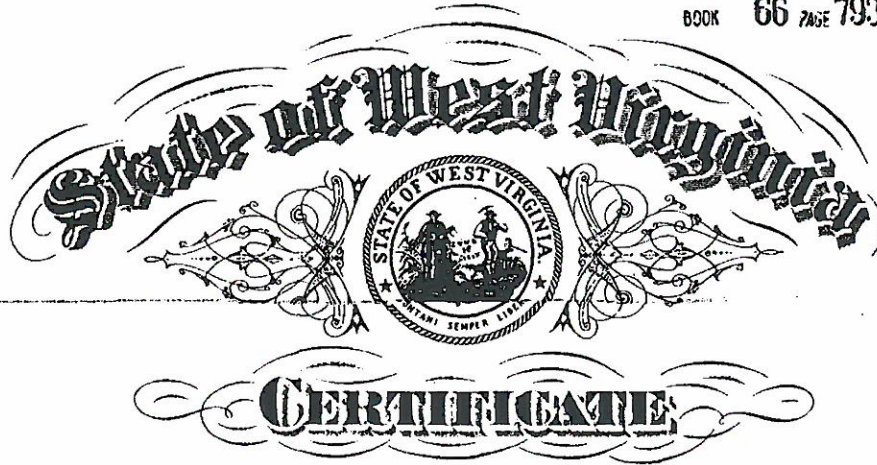


A handwritten signature in cursive script, reading "Emily Papadimitriou", is written over a light purple rectangular background.

Board Administrator

WV Licenses & Registrations

BOOK 66 PAGE 793



*I, Ken Heckler, Secretary of State of the
State of West Virginia, hereby certify that*

by the provisions of Chapter 31, Article 1, Sections 27 and 28 of the West Virginia
Code, the Articles of Incorporation of

McKINLEY & ASSOCIATES, INC.

conform to law and are filed in my office. I therefore declare the organization to
be a Corporation for the purposes set forth in its Articles, with the right of perpetual
existence, and I issue this

CERTIFICATE OF INCORPORATION

to which I have attached a duplicate original of the Articles of Incorporation.

*Given under my hand and the
Great Seal of the State of
West Virginia, on this*

FIFTEENTH day of

DECEMBER 19 89



Ken Heckler

Secretary of State.

WV Licenses & Registrations

**WEST VIRGINIA
STATE TAX DEPARTMENT
BUSINESS REGISTRATION
CERTIFICATE**

ISSUED TO:
MCKINLEY & ASSOCIATES INC
32 20TH ST
WHEELING, WV 26003-3750

BUSINESS REGISTRATION ACCOUNT NUMBER: **1040-9524**

This certificate is issued on: **06/28/2011**

*This certificate is issued by
the West Virginia State Tax Commissioner
in accordance with Chapter 11, Article 12, of the West Virginia Code*

*The person or organization identified on this certificate is registered
to conduct business in the State of West Virginia at the location above.*

This certificate is not transferrable and must be displayed at the location for which issued.

This certificate shall be permanent until cessation of the business for which the certificate of registration was granted or until it is suspended, revoked or cancelled by the Tax Commissioner.

Change in name or change of location shall be considered a cessation of the business and a new certificate shall be required.

TRAVELING/STREET VENDORS: Must carry a copy of this certificate in every vehicle operated by them.
CONTRACTORS, DRILLING OPERATORS, TIMBER/LOGGING OPERATIONS: Must have a copy of this certificate displayed at every job site within West Virginia.

atL006 v.4
L0539442304

WV Licenses & Registrations

CERTIFICATE OF

Authorization

STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS

*The West Virginia State Board of Registration for Professional Engineers
having verified the person in responsible charge is registered in
West Virginia as a professional engineer for the noted firm, hereby certifies*

MCKINLEY & ASSOCIATES, INC.

C00366-00

Engineer in Responsible Charge: TIM E MIZER - WV PE 013169

*has complied with section §30-13-17 of the West Virginia Code governing
the issuance of a Certificate of Authorization. The Board hereby notifies you of its
certification with issuance of this Certification of Authorization for the period of:*

January 1, 2018 - December 31, 2019

providing for the practice of engineering services in the State of West Virginia.

IF YOU ARE REQUIRED TO REGISTER WITH THE SECRETARY OF STATE'S OFFICE,
PLEASE SUBMIT THIS CERTIFICATE WITH YOUR APPLICATION.




IN TESTIMONY WHEREOF, THE WEST VIRGINIA STATE BOARD OF
REGISTRATION FOR PROFESSIONAL ENGINEERS HAS ISSUED THIS COA
UNDER ITS SEAL AND SIGNED BY THE PRESIDENT OF SAID BOARD.

BOARD PRESIDENT

Insurance

Per your request, you will find copies of our various Insurance Coverages on this and the following page.

ACORD™		CERTIFICATE OF LIABILITY INSURANCE		DATE (MM/DD/YYYY) 06/19/2018																						
<p>THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.</p> <p>IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).</p>																										
PRODUCER Paul Associates 1311 Chapline Street P. O. Box 990 Wheeling, WV 26003-0123			CONTACT NAME: PHONE (A/C, No, Ext): 304.233.3303 FAX (A/C, No): 304.233.3333 E-MAIL ADDRESS: PRODUCER CUSTOMER ID #: 																							
INSURED McKinley & Associates, Inc. The Maxwell Centre 32-20th Street Wheeling, WV 26003			<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="2">INSURER(S) AFFORDING COVERAGE</th> <th>NAIC #</th> </tr> <tr> <td>INSURER A:</td> <td>Cincinnati Insurance Co.</td> <td>10677</td> </tr> <tr> <td>INSURER B:</td> <td>Brickstreet Ins</td> <td>Brick</td> </tr> <tr> <td>INSURER C:</td> <td></td> <td></td> </tr> <tr> <td>INSURER D:</td> <td></td> <td></td> </tr> <tr> <td>INSURER E:</td> <td></td> <td></td> </tr> <tr> <td>INSURER F:</td> <td></td> <td></td> </tr> </table>			INSURER(S) AFFORDING COVERAGE		NAIC #	INSURER A:	Cincinnati Insurance Co.	10677	INSURER B:	Brickstreet Ins	Brick	INSURER C:			INSURER D:			INSURER E:			INSURER F:		
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INSURER C:																										
INSURER D:																										
INSURER E:																										
INSURER F:																										
<p>COVERAGES CERTIFICATE NUMBER: 2018-2019 COI's REVISION NUMBER:</p> <p>THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.</p>																										
INSR LTR	TYPE OF INSURANCE	ADDL SUBR INSR VWD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS																				
A	GENERAL LIABILITY		EPP/EBA0146335	06/15/2018	06/15/2019	EACH OCCURRENCE \$ 1,000,000																				
	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY					DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 500,000																				
	<input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR					MED EXP (Any one person) \$ 10,000																				
						PERSONAL & ADV INJURY \$ 1,000,000																				
	GEN'L AGGREGATE LIMIT APPLIES PER:					GENERAL AGGREGATE \$ 2,000,000																				
	POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC					PRODUCTS - COMP/OP AGG \$ 2,000,000																				
A	AUTOMOBILE LIABILITY		EPP/EBA0146335	06/15/2018	06/15/2019	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000																				
	<input type="checkbox"/> ANY AUTO					BODILY INJURY (Per person) \$																				
	<input type="checkbox"/> ALL OWNED AUTOS					BODILY INJURY (Per accident) \$																				
	<input checked="" type="checkbox"/> SCHEDULED AUTOS					PROPERTY DAMAGE (Per accident) \$																				
	<input checked="" type="checkbox"/> HIRED AUTOS					\$																				
	<input checked="" type="checkbox"/> NON-OWNED AUTOS					\$																				
A	UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR		EPP/EBA0146335	06/15/2018	06/15/2019	EACH OCCURRENCE \$ 1,000,000																				
	EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE					AGGREGATE \$ 1,000,000																				
	DEDUCTIBLE					\$																				
	RETENTION \$					\$																				
B	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY		WCB1018014	12/30/2017	12/30/2018	WC STATU-TORY LIMITS <input checked="" type="checkbox"/> OTH-ER																				
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH)	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N				E.L. EACH ACCIDENT \$ 1,000,000																				
	If yes, describe under DESCRIPTION OF OPERATIONS below					E.L. DISEASE - EA EMPLOYEE \$ 1,000,000																				
						E.L. DISEASE - POLICY LIMIT \$ 1,000,000																				
DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required) CERTIFICATE ISSUED AS PROOF OF INSURANCE.																										
CERTIFICATE HOLDER MCKINLEY & ASSOCIATES, INC. ATTN: LISA DICARLO 32-20TH STREET WHEELING, WV 26003			CANCELLATION SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. AUTHORIZED REPRESENTATIVE 																							
ACORD 25 (2009/09) The ACORD name and logo are registered marks of ACORD © 1988-2009 ACORD CORPORATION. All rights reserved.																										

Insurance



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
10/6/2017

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER The James B. Oswald Company 1100 Superior Avenue, Suite 1500 Cleveland OH 44114		CONTACT NAME: Serena Turchik PHONE (A/C No. Ext.): 216-777-6134 E-MAIL ADDRESS: sturchik@oswaldcompanies.com FAX (A/C No.):	
		INSURER(S) AFFORDING COVERAGE INSURER A: Continental Insurance Company	NAIC # 18313
INSURED MCKIN-1 McKinley & Associates, Inc. 32 20th Street #100 Wheeling WV 26003		INSURER B: INSURER C: INSURER D: INSURER E: INSURER F:	

COVERAGES

CERTIFICATE NUMBER: 1919827327

REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
	GENERAL LIABILITY <input type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input type="checkbox"/> OCCUR <input type="checkbox"/> GEN'L AGGREGATE LIMIT APPLIES PER <input type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC						EACH OCCURRENCE \$ DAMAGE TO RENTED PREMISES (Ea occurrence) \$ MED EXP (Any one person) \$ PERSONAL & ADV INJURY \$ GENERAL AGGREGATE \$ PRODUCTS - COMP/OP AGG \$ \$
	AUTOMOBILE LIABILITY <input type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS <input type="checkbox"/> NON-OWNED AUTOS						COMBINED SINGLE LIMIT (Ea accident) \$ BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$
	<input type="checkbox"/> UMBRELLA LIAB <input type="checkbox"/> OCCUR <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE <input type="checkbox"/> DED <input type="checkbox"/> RETENTION \$						EACH OCCURRENCE \$ AGGREGATE \$ \$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? <input type="checkbox"/> Y <input checked="" type="checkbox"/> N (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below						<input type="checkbox"/> WC STATUTORY LIMITS <input type="checkbox"/> OTHER E L EACH ACCIDENT \$ E L DISEASE - EA EMPLOYEE \$ E L DISEASE - POLICY LIMIT \$
A	Professional Liability Claims Made Retro Date: 9/10/1981	N	Y	AEH591893924	10/10/2017	10/10/2018	Each Claim \$1,000,000 Aggregate \$1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

Waiver of Subrogation as designated above is provided when required of the Named Insured by written contract or agreement.

CERTIFICATE HOLDER

Specimen
For Purposes of Evidencing
Coverage Only WV 26003

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

Serena C Turchik

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ACORD 25 (2010/05)

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McKINLEY
ARCHITECTURE + ENGINEERING

Staffing Capabilities & Management Plan

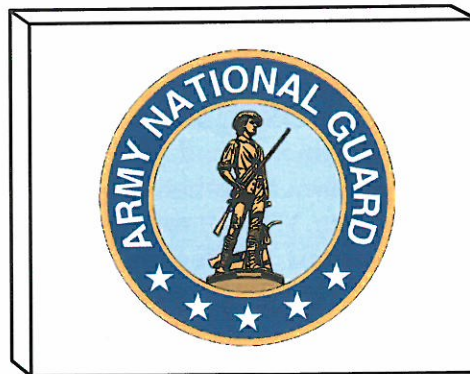
Over the years, McKinley Architecture and Engineering has designed many relevant projects involving renovations, more efficient equipment such as HVAC and windows, restroom renovations, new exterior and interior doors, LED lighting, roof replacements, and much more. In addition, our consultants Stafford and Potesta have the ability to perform the other services you require, such as geotechnical drill borings, utilities, roadways, sitework, etc. **We will meet ALL of your Project Goals and Objectives** which you list in Section Three, Part 2. We know this Team possesses the required expertise to address all facets of your project - from architectural and engineering services, designing to your needs, meeting codes, designing to budget, providing construction contract administration services, etc.

The most important element of the entire process becomes **communication** from you to our designers. We use and welcome your input throughout the project. Initial meetings with the users and staff will incorporate reviewing the existing plans and conditions as well as the operation of the Building 301, references to the codes and standard with the object goal of determining budget, design and logistical priorities for the project. Therefore, to start your project, a **kickoff meeting** will be held with all pertaining **West Virginia Army National Guard and Camp Dawson** representatives for a walkthrough of Building 301, with all the McKinley Team design professionals. From this meeting the Owners Project Requirements will be defined and documented, to be used as a guideline through the design phase. We will use all this information to aid in the designs of the project to meet all of your Goals and Objectives.

Ray Winovich, RA is your project Architect and Main Point of Contact. He has nearly 40 years of experience. Ray, along with support staff, will track and manage the design discussions and decisions throughout the project from inception to completion. He will coordinate project-related tasks and consultant progress, perform code reviews and write the project specifications. All of our Engineers are involved in virtually every project, along with an Architect, and a Construction Administrator. In addition, our Quality Assurance Program also starts with a peer review where a registered professional not involved in the design becomes reviewer of the project before going to bid. We hold weekly meetings to discuss your project, the budget, schedule and quality assurance; we provide Documented Minutes and encourage you to participate in these meetings.

During the construction, the processing of shop drawings and submittals will be controlled and monitored by Mr. Winovich, and includes the receipt, logging, review and return of submittals. Urgent items can often be expedited to satisfy the construction schedule. Moreover, our Construction Administrators have an extra responsibility than what most firms' Construction Administrators have; our CAs are also part of the design process from Day 1 (they are not thrown into the project only when construction starts; they are here from the beginning), so they know the ins-and-outs of the project. Our CAs have an important role as being the liaison between the Owner, Contractor, and Architect/Engineers. The primary objective of the CA services is to ensure completion of work the way the client wants it - as scheduled and as budgeted. Bob Smith, your Construction Administrator, will evaluate the quality of the work to verify that it meets the level you require; in addition, he will monitor the contractor's progress to ensure that they are following the Construction Documents. The CAs observe the construction progress, are responsible for all construction meetings and minutes, and they verify pay application and change orders. Furthermore, our 11-Month Walk-Through is a process where our professionals return to your facility eleven months after the project is completed. At that time they review all the work that was completed and check all warranties. We are making sure all of the covered work is in order and that the warranties do not expire with equipment or product not working properly.

Design Team Flow Chart



Project Architect / Main Point of Contact

■■■ Ray Winovich, RA

Engineering Team

■■■ Tim E. Mizer, PE, RA, QCxP
*Director of Engineering / Architectural Engineer /
Architect / Commissioning Provider*

■■■ Bruce A. Kennedy, PE
Electrical Engineer

■■■ Michael A. Heath
Mechanical/HVAC & Fire Protection Engineering Designer

■■■ Scott D. Kain
Plumbing & Electrical Engineering Designer

▲ Christopher A. Grose, LRS
Geological/Geotechnical Engineer

▲ Jeremi J. Stawovy, EIT
Environmental Engineer-in-Training

▲ Peter S. Potesta
Staff Engineer

ℳ Kenneth R. Crow, PE
*Stafford Vice President / Site Civil Engineer /
Structural Engineer*

ℳ Stacy A. Fowler, PE
Civil Engineer / Water and Wastewater

ℳ Kevin G. Smith
Civil Site Structural Engineering Designer

ℳ Matthew W. Peters
Water and Wastewater Engineering Designer

▲ David B. Sharp, PE
Geotechnical Engineer

▲ Dana L. Burns, PE, PS
Engineer / Surveyor

▲ Victor M. Dawson, PS
Professional Surveyor

Interior Design

■■■ Deb Blakeman, NCIDQ #015070

Construction Administration

■■■ Robert E. Smith

Ray Winovich, RA, NCARB

Architect

EDUCATION:

Carnegie-Mellon University
Bachelor of Architecture - 1979

PROFESSIONAL AFFILIATIONS AND REGISTRATIONS:

Registered Architect in:

Pennsylvania (1984)
Washington (1997)
Michigan (2000)
Indiana (2000)
New York (2003)
Massachusetts (2003)
West Virginia (2005)
Ohio (2007)

NCARB Certificate - 2003

PROFESSIONAL EMPLOYMENT:

McKinley Architecture and Engineering
Washington, PA (2005 to present)

Industrial Design Corp.
Pittsburgh, PA (2000-2005)

SSOE, Inc
Bellevue, WA and Toledo, OH (1997-2000)

R.T. Patterson Co. Engineers
Pittsburgh, PA (1994-1997)

Self employed (1993-1994)

Industrial Design Corp.
Pittsburgh, PA (1990-1992)

SUMMARY OF EXPERIENCE:

Mr. Winovich is a Registered Architect, and our Washington, PA office manager, who has extensive experience in projects of various sizes and use groups. This includes municipal, commercial, governmental, financial, educational, medical, industrial laboratory operations, as well as larger high-technology micro-electronics cleanroom retrofits for clients such as Micron, Intel and IBM. He is an award-winning architect; most recently he completed the \$10 million J.B. Chambers Performing Arts Center at Wheeling Park High School, which was just selected as an Outstanding Design by the American School & University Magazine's 2013 Architectural Portfolio; the premier showcase celebrating the best in education design! He even has experience internationally, such as being the lead architect of a 150,000 SF, Class-10 clean-room lab for Intel in Leixlip, Ireland.

NOTABLE PROFESSIONAL EXPERIENCES:

United States Postal Service - open end IDIQ contract / multiple renovation projects in various postal facilities

Cabela's Eastern Distribution Center / Phase II

Follansbee City Building renovations

Bayer Heritage Federal Credit Union - Moundsville Branch & Warehouse and Office Building in New Martinsville

Reynolds Memorial Hospital Rapid Care Center renovations & Emergency Room renovations

Holiday Inn Express & Suites - on-call contract / The Highland in Triadelphia, WV, Parkersburg, WV, Cambridge, OH, Washington, PA, & Cumberland, MD

Washington & Jefferson College - renovations to Old Main Building, Commons Building, Thompson Hall, & Facilities Building

Brooke County Schools - Follansbee Middle School renovations & Carlin Dodrill Field House renovations

Ohio County Schools - New \$10 million Performing Arts Center

Wetzel County Schools - open end IDIQ contract / County-Wide School Security Renovations, Hundred High gymnasium renovations, Paden City High renovations, & Board of Education Building renovations

Wood County Schools - 270,000 SF overall campus renovation of Parkersburg South High School / \$23 Million

Wheeling Jesuit University - Bishop Schmitt Field improvement & Fitzsimmons Press Box expansion

Carenbauer Wholesale Corp. office renovations and warehouse addition

Silgan Warehouse expansion at The Highlands

Dr Ganzer Office Building renovation and expansion

Candlewood Suites Hotel, Morgantown, WV

Wheeling Country Club

TSItouch

Tim E. Mizer, PE, RA, QCxP

Architectural Engineer / Architect / Commissioning Provider

Director of Engineering

EDUCATION:

Kansas State University
B.S. Architectural Engineering - 1983

University of Cincinnati
Architecture

PROFESSIONAL AFFILIATIONS AND REGISTRATIONS:

Registered Engineering in:
West Virginia
Ohio

Registered Architect in:
Ohio

**Qualified Commissioning Process
Provider**

PROFESSIONAL EMPLOYMENT:

McKinley Architecture and Engineering
Director of Engineering
Architect / Engineer / Commissioning
Wheeling, WV (1995 to present)

M.C.C. Engineering
Director of Design
Columbus, Ohio (1988-1995)

Schooley Caldwell and Associates
Electrical & Mechanical Design
Columbus, Ohio (1986-1988)

Mizer Design
Free Lance Architectural Engineering Design
Columbus, Ohio (1985-1986)

Envirotek, Inc.
Drafting and Electrical & Mechanical Design
Raleigh, NC (1984-1985)

SUMMARY OF EXPERIENCE:

A very talented and unique professional who is registered both in **engineering** and **architecture**, which has provided him with a total understanding of the engineering components and the process necessary for integrating architectural design and building systems. In addition, he is also a **Qualified Commissioning Provider**, where he has been formally trained to fully understand how integrated HVAC systems function and how systems interface with others to run your building efficiently. As the **Director of Engineering**, Mr. Mizer's presence is a key to the design procedures required to coordinate the functionality of the engineering systems into the aesthetics of a building space. Mr. Mizer joined McKinley Architecture and Engineering in 1995, and has over 30 years of experience.

NOTABLE PROFESSIONAL EXPERIENCES:

West Virginia Army National Guard - multiple projects, including Multi-Purpose Building at Camp Dawson, AASF#1, SPCC Plans, and more

United States Postal Service - 2 Open-End IDIQ contracts / several post offices in WV and PA

West Virginia State Police - Open-End A/E contract / dozens of projects, including renovations and new detachments

Building 34: WV State Office Complex in Weirton

Building 55: WV State Office Complex in Logan (**LEED Certified**)

Wheeling Park Commission - multiple projects at Wheeling Park & Oglebay Park

Hancock County Schools - new Oak Glen Middle, Senator John D. Rockefeller IV Career Center renovations, new Weirton Elementary, & multiple other addition/renovation projects

Wheeling Island Hotel•Casino•Racetrack - On-Call A/E contract / multiple projects

Holiday Inn Express & Suites - on-call contract / 5 hotels in 4 States

West Virginia University - Open-End A/E contract / multiple projects including new Fire Training Academy, and much more

The Towers Building - multiple renovations

Millennium Centre Technology Park - multiple projects

Steel Valley Regional Transit Authority renovations

Sisters of St. Joseph - Mount St. Joseph Convent Living renovations

Holiday Inn Express & Suites - multiple locations

Chambers YMCA renovations

Hilltop Elementary School (**LEED Certified**)

Grave Creek Mound Museum Restrooms & Auditorium renovations

Grant County Schools - multiple projects

Bruce A. Kennedy, PE

Electrical Engineer

EDUCATION:

The University of North Dakota
B.S. Electrical Engineering - 1975

DeVry Institute of Technology

MILITARY SERVICE:

US Air Force - Honorable Discharge

PROFESSIONAL AFFILIATIONS AND REGISTRATIONS:

Registered Engineer

PROFESSIONAL EMPLOYMENT:

McKinley Architecture and Engineering
Electrical Engineer
Wheeling, WV (2018 to present)

Advanced Electrical Simulations LLC
Owner/Principal Engineer
Spring, TX (2014 to present)

Cameron International
Principal Electrical Engineer
Houston, TX (2011-2014)

SUMMARY OF EXPERIENCE:

Mr. Kennedy has been an **Electrical Engineer** since 1975. He is an experienced power electronics/electrical systems design engineer with extensive electrical simulation experience using ETAP, SKM, EasyPower and PSIM. He personally owns and maintains ETAP license. He has completed electrical system designs for industrial, office, medical, educational, retail construction, and more.

NOTABLE PROFESSIONAL EXPERIENCES:

WVDOT, Division of Highways - District 6 Moundsville Headquarters

The Towers Building renovations

Wetzel County Schools - Valley Field House

Harrison County Schools - Johnson Elementary School

Facilities arc-flash, short-circuit fault, protective device coordination, load flow and harmonics studies.

Facilities electrical system existing conditions, code compliance and problem solving surveys.

Drilling rig short-circuit fault current, protective device coordination, load flow and harmonics studies.

Application of NEC, IEC and ABS standards to mobile offshore drilling rig electrical systems.

Computer data center electrical system design and onsite project management.

Data center short-circuit fault current, protective device coordination and arc-flash studies.

Electrical system designs for medical, industrial, office and retail construction.

Building load analyses, emergency generator sizing and fault current studies.

Electrical system designs for hospitals, medical clinics and educational buildings.

Short-circuit fault current, protective device coordination and arc-flash studies.

Industrial battery charger and UPS systems power electronics design.

Custom power conversion equipment/systems design.

Michael A. Heath

HVAC & Fire Protection Engineering Designer

EDUCATION:

ITT Technical Institute
Associate Degree in Specialized Technology:
Computer-Aided Drafting Technology - 2000

PROFESSIONAL EMPLOYMENT:

McKinley Architecture and Engineering
Mechanical & Fire Protection Designer
Wheeling, WV (2007 to present)

Janus, Inc.
AutoCAD Designer / Project Manager
Pittsburgh, PA (2002-2007)

Comunale Automatic Sprinkler
Fire Protection Designer
Pittsburgh, PA (July 05 - Oct 05)

S.A. Comunale Inc.
Fire Protection Designer
Pittsburgh, PA (2000-2002)

SUMMARY OF EXPERIENCE:

Mr. Heath brings a cross-trained design background to your project, and has vast knowledge in a diverse range of disciplines. He was trained by the National Fire Protection Association (NFPA) in Dallas, Texas, and has used these skills to work on projects from multiple business sectors and with various sizes, such as the 4 story, 1,500,000 square foot David L. Lawrence Convention Center in Pittsburgh, Pennsylvania. He has vast expertise in designing and calculating fire protection systems, standpipes, dry and wet systems, hydraulics, and water cannons; stock listing materials for systems; as well as surveying job sites and frequent business trips to coordinate jobs.

NOTABLE PROFESSIONAL EXPERIENCES:

West Virginia Army National Guard - multiple projects
United States Postal Service - multiple projects
WVDHHR's Ohio County / Wheeling office renovations
Building 55 - WV State Office Complex in Logan (LEED Certified)
Fairmont State University - 3 new College Apartment Buildings
Holiday Inn Express Hotel & Suites - multiple projects
Candlewood Suites Hotel
Silver Company - Moss Neck Storage Building
Wheeling Island Hotel•Casino•Racetrack - various renovations
Bennett Square Office Building renovations
Panhandle Cleaning & Restoration warehouse & office building
Cabela's Eastern Distribution Center
Carenbauer Wholesale Corporation warehouse addition
PWP Industries
Capitol Theatre renovations
West Virginia Independence Hall renovations
Boone County Schools - multiple projects
Marshall County Schools - multiple projects
Ohio County Schools - multiple projects
Hancock County Schools - multiple projects
Ritchie County Middle/High School
Tyler County Schools - 3 HVAC projects
Wetzel County Schools - Long Drain Elementary
For 14 WV counties; provided Fire Protection and Mechanical assessments at every school (160+ schools), for their 10-year Comprehensive Educational Facilities Plan (CEFP 2010-2020)

Scott D. Kain

Plumbing & Electrical Engineering Designer

EDUCATION:

Technology Education College /
Ohio State University
Associates in Mechanical Design - 1996

PROFESSIONAL EMPLOYMENT:

McKinley Architecture and Engineering
Engineering Designer
Wheeling, WV (2001 to present)

HAWA Inc.
Mechanical Designer
Columbus, OH (1998-2001)

Autotool Inc.
Engineer
Columbus, OH (1995-1998)

SUMMARY OF EXPERIENCE:

Mr. Kain is an accomplished engineering designer who has performed in all the engineering trades we provide; specializing in plumbing, electrical, and fire protection. He has been utilized for various McKinley Architecture and Engineering' projects that needed additional mechanical, structural, and architectural manpower. In addition, Mr. Kain has also provided 3D renderings, to aid in business development, during his long tenure at McKinley Architecture and Engineering.

NOTABLE PROFESSIONAL EXPERIENCES:

West Virginia Army National Guard - Multi-Purpose Building at Camp Dawson in Kingwood, WV

West Virginia Army National Guard - AASF#1 Maintenance Building & Hangar renovations

United States Postal Service - multiple projects

West Virginia State Police - multiple projects

Building 34 - WV State Office Complex in Weirton

Building 55 - WV State Office Complex in Logan (LEED Certified)

West Virginia Health & Human Resources Wheeling Office renovations

Main Street Bank, Moundsville Branch

West Virginia University - University Police Building

West Virginia University - new State Fire Training Academy

Wheeling Island Fire Station renovations

WVSBA - School Safety & Vulnerability Assessments

Holiday Inn Express & Suites - multiple projects

YMCA Elm Grove renovation

Mount St. Joseph Convent Living Renovations

Fairmont State University - College Apartments Housing Complex

WVU Institute of Technology - Maclin Hall Dormitory renovations

Wheeling Island Hotel•Casino•Racetrack - multiple projects

Orrick's Global Operations Center renovations

Millennium Centre Technology Park - multiple projects

Panhandle Cleaning & Restoration warehouse and office building

Cameron Middle School/High School (LEED Registered)

Hilltop Elementary School (LEED Certified)

Bennett Square Office Building renovations

Marshall Co. Schools District-Wide Construction Program (\$38 million)

Hancock Co. Schools District-Wide Construction Program (\$56 million)

Wood Co. Schools District-Wide Construction Program (\$63 million)

Deb Blakeman, NCIDQ #015070

Interior Designer



EDUCATION:

University of Charleston
Bachelor of Arts, Interior Design - 1992

PROFESSIONAL AFFILIATIONS AND REGISTRATIONS:

**National Council for Interior
Design Qualification:**
NCIDQ [REDACTED]

Associate Member:

The American Institute of Architects

PROFESSIONAL EMPLOYMENT:

McKinley Architecture and Engineering
Charleston, WV (2004 to present)

HDMR Group Inc
Charleston, WV (2000-2004)

Custom Office Furniture
Charleston, WV (1994-2000)

University of Charleston
Teacher
Charleston, WV (1997-2000)

Interior Design
Charleston, WV (1992-1994)

Freeland Furniture Company
Charleston, WV (1981-1987)

Interior Reflections
Logan, WV (1980-1981)

SUMMARY OF EXPERIENCE:

Deb Blakeman has over 35 combined years of experience in the **interior design** field including governmental, corporate facilities, banks, residential, education and health care projects. She has knowledge and experience with application of ADA regulations, ergonomic standards, state building code and industrial standards as they apply to interior furnishings, space planning and finishes. Ms. Blakeman has spent a lot of time researching LEED-approved furnishings, finishes, etc. to make the interior energy conservation aspect a success in multiple sustainable projects. As a professional designer, Deb Blakeman believes it is important to find the right balance between organizational and individual needs to increase productivity. Improving comforts through lighting and ergonomically sound furnishings will increase employer performance, and efficient spaces will organize work flow, decreasing communication barriers.

NOTABLE PROFESSIONAL EXPERIENCES:

West Virginia State Police - Open-End A/E contract / multiple projects across WV, including many WVSP Academy buildings, new Logan Detachment, and more

Building 55: West Virginia State Office Complex (**LEED Certified**)

Wheeling Island Hotel•Casino•Racetrack - On-Call contract / multiple projects

West Virginia University - Open-End A/E contract / Colson Hall renovations, new State Fire Training Academy, WVU Institute of Technology's Maclin Hall Dormitory, and more

West Virginia Northern Community College - B. & O. Building renovations/ adaptive reuse & Education Center renovations/adaptive reuse

Fairmont State University - College Student Housing Apartments Complex

West Virginia State University's Gus R. Douglass Economic Development Center (DigiSo) renovations/adaptive reuse

Boone Co. Schools - Ashford Rumble ES renovations, Boone County Honors Academy renovations/addition, Brookview ES renovations/ addition, & Madison ES renovations

Clay Co. Schools - Lizemore ES renovations

Grant Co. Schools - Petersburg HS renovations & Union Educational Complex (PK-12) renovations/addition

Hancock County Schools - District-Wide Construction Program / multiple projects: new construction, renovations, & additions

Marshall Co. Schools - District-Wide Construction Program / multiple projects: new construction, renovations, & additions, including Hilltop ES (**LEED Certified**) & Cameron MS/HS (**LEED Registered**) among others

Wood Co. Schools - District-Wide Construction Program / multiple renovations & additions projects

Bennett Square office fit-out

Mythology Marketing office fit-out

Panhandle Cleaning & Restoration office & warehouse

Robert E. Smith

Construction Administrator

EDUCATION:

University of Pittsburgh
M.S. Industrial Engineering - 1989

United States Air Force Academy
B.S. Behavioral Science /
Human Factors Engineering - 1983

PROFESSIONAL AFFILIATIONS AND REGISTRATIONS:

Board Member:

Indian Creek School District (elected in 2009)

Instructor:

Mechanical Engineering, Eastern Gateway
Community College

President:

Mingo Business Association (2007 to present)

Commander:

American Legion Post 351 (2008 to present)

PROFESSIONAL EMPLOYMENT:

McKinley Architecture and Engineering
Construction Administrator
Wheeling, WV (2009 to present)

Jefferson County Regional Planning Commission
Regional Planner
Steubenville, OH (2008-2009)

Edison Local School District
Director of Operation (1999-2008)
Transportation Supervisor (1998-1999)
Hammondsville, OH

MILITARY SERVICE:

Wright Patterson Air Force Base - Dayton, OH
Chief B-2, Block 20 Field Retrofit, \$300 million
B-2 Systems Program Office (1994-1996)
Team Leader, Process Improvement Technology
Armstrong Laboratory (1989-1994)

Randolph Air Force Base - San Antonio, TX
Chief, Test Construction Section
Occupational Measurement Center (1987-1988)
Quality Control Psychologist
Occupational Measurement Center (1985-1987)
Supervisor of Test Construction Team
Occupational Measurement Center (1983-1985)

SUMMARY OF EXPERIENCE:

Mr. Smith is a self confident, articulate and highly motivated individual with superior interpersonal and teamwork skills. He has a plethora of experience in mid to upper level personnel management, advanced information systems integration, training, acquisition, contract management, transportation and maintenance, and quality control. He is currently a member of the Board of Education for the Indian Creek School District in Jefferson County, Ohio. He is also an Adjunct Professor at Eastern Gateway Community College in Steubenville, Ohio, where he is teaching Mechanical Engineering. In addition, has 23 years of direct supervisory experience, as well as **13 years of documented success as an Air Force Officer.**

NOTABLE PROFESSIONAL EXPERIENCES:

WV Army National Guard - AASF#1 Hangar renovations

USPS Clarksburg Financial Office renovations

USPS Parkersburg Carrier Annex & Hub renovations

City of Steubenville - 4 Parks' Exterior Safety & Security Lighting

Jefferson County Commission - Ohio Valley Towers renovations

Steel Valley Regional Transit Authority renovations

Cameron American Legion exterior renovations

Harrison County Courthouse roof

Follansbee City Building renovations

Cabela's Eastern Distribution Center

Lincoln National Bank Building

Fairmont State University's College Apartments Housing Complex

Brooke County Schools - Follansbee Middle renovations

Grant Co. Schools - Union Educational Complex renovations

Hampshire County Schools - Animal Vet Science Center

Hancock Co. Schools - Senator John D. Rockefeller IV Career Center renovations

Hancock Co. Schools - New Manchester Elementary renovations

Hancock Co. Schools - Oak Glen High renovations

Hancock Co. Schools - Weirton Elementary

Marshall Co. Schools - Cameron High (LEED Registered)

Marshall Co. Schools - Hilltop Elementary (LEED Certified)

Tyler Co. Schools - 3 HVAC renovation projects

The Linsly School - Banes Hall & Coudon Ogden Library

The Linsly School - Behrens Gym



KENNETH R. CROWE, P.E.
VICE PRESIDENT

EDUCATION:

West Virginia Institute of Technology
Bachelor of Science, Civil Engineering (1976)

REGISTRATIONS/AFFILIATIONS:

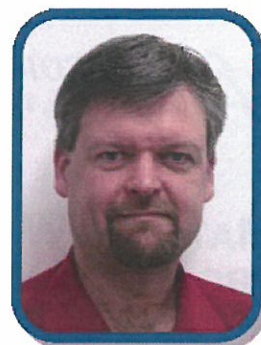
Registered Professional Engineer in
West Virginia (1980) and Virginia (1981)

EXPERIENCE:

Stafford Consultants Incorporated (1985 to present)
Gates Engineering Company (1981 to 1985)
Westmoreland Coal Company (1976 to 1981)

PROJECT MANAGER AND DESIGN ENGINEER:

- Cameron High School, Marshall County – site work
- Weirton Elementary School, Hancock County – site work
- Hilltop Elementary School, Marshall County – site work
- Williamstown High School renovations, Wood County – site work
- Bayer Federal Credit Union, Ohio County – site work
- Brooke County Middle School, Brooke County – structural and site work
- Oak Glen High School Multi-use Stadium, Hancock County – site work
- Marshall University Married Student Housing, Huntington, WV – structural renovation work
- Princeton Renaissance Theater Renovations, Princeton, WV – structural renovation work
- Mercer County Health Center in Green Valley, WV – structural and site work
- Oakvale Elementary School in Oakvale, WV – structural and site work
- North Central Advanced Technology Center in Marion County, WV – structural work
- Merriman Athletic Facilities building at Virginia Tech – structural and site work
- 25 projects for the WVDoH including Cass Arch Bridge (*WVDoH Small Bridge Engineering Excellence Award Winner*), Mineral Wells I-77 Interchange Overpass Bridge (*WVDoH Small Bridge Engineering Achievement Award Finalist*), Camden Avenue I-77 Bridge, Grapevine Creek Bridge (*WVDoH Small Roadway Engineering Excellence Award Winner*), North Lewisburg Road Widening (*WVDoH Small Roadway Engineering Achievement Award Finalist*), and Mullens Overhead Bridge.
- 21 mine reclamation projects for the WVDEP, including Williamson Nursing Home Slide, Milburn Red Dog Pile, Mill Branch Refuse Piles, Canebrake Complex, and Matoaka Refuse Pile.



STACY A. FOWLER, P.E.
PROJECT MANAGER

EDUCATION:

Bluefield State College
BS, Civil Engineering Technology (1995)
University of Central Florida
Master of Science, Civil Engineering (2007)

REGISTRATIONS/AFFILIATIONS:

Registered Professional Engineer in West Virginia (2002),
Georgia (2003), and Florida (2007)

EXPERIENCE:

Stafford Consultants Incorporated (2009 to present)
Engineering Design and Construction, Inc. (2004-2009)
Port St. Lucie, FL Utility Systems Dept. (2001 to 2004)
Velcon Group, Incorporated (1998 to 2001)

Pentree, Inc. (1998)
Computects, Incorporated (1997-1998)
Visualizations, Incorporated (1995-1997)
Pentree, Inc. (1995)

PROJECT MANAGER AND DESIGNER:

- Meadow Bridge Sewer Improvements Project for the Town of Meadow Bridge, WV
- Mercer/Summers Phase IV-A Waterline Extension for Oakvale Road PSD – 8 miles of water main, storage tank and pressure reducing stations near Oakvale, WV
- Town of Rainelle Water System Expansion Project in Greenbrier County, WV
- Renovations to the Welch Water Treatment Plant for the City of Welch, WV
- Southern Grove Master Drainage Model for 3,600 acre development in Port St. Lucie, FL
- Tradition Operable Structures within the Tradition Development in Port St. Lucie, FL
- Tradition Master Control Structure spanning 50' wide drainage canal for 1,500 acre land development project in Port St. Lucie, FL
- Western Grove Master Drainage Model for 1,550 acre development in Port St. Lucie, FL
- Peacock Canal Relocation and Maintenance – included stream restoration and relocation for 3,000 acre land development in Port St. Lucie, FL
- Chester Brook Academy – paving, grading, and drainage plans along with permitting for 10,000 sq.ft. day care facility in Port St. Lucie, FL
- Port Consolidated – paving, grading, and drainage plans along with permitting for a 2 acre fueling station in Fort Pierce, FL
- B-Shaped Lake – construction plans, permitting, and contract administration for 2 acre, 80' deep lake for stormwater system in Port St. Lucie, FL



MATTHEW W. PETERS
PROJECT MANAGER

EDUCATION:

Bluefield State College
BS, Civil Engineering Technology (2010)
Bluefield State College
BS, Architectural Engineering Technology (2009)

REGISTRATIONS/AFFILIATIONS:

None

EXPERIENCE:

Stafford Consultants Incorporated (2009 to present)

TECHNICIAN AND DESIGNER:

- City of Princeton, Mercer County – wastewater treatment plant upgrade
- City of Welch, McDowell County – North Welch Wastewater Expansion
- City of Welch, McDowell County – Contracts 8B, 8C, 8D Stormwater/Sanitary Separation Projects
- Big Bend Public Service District, Summers County – water system expansion
- Town of Alderson, Greenbrier County – wastewater treatment plant upgrade
- City of Richwood, Nicholas County – Hinkle Mountain water system expansion
- Melrose Elementary School, Princeton, WV - layout and location survey for multipurpose building
- Bluefield High School, Bluefield, WV – layout for softball field lights
- Montcalm High School, Montcalm, WV – layout for softball field lights
- Princeton Middle School, Princeton, WV – elevation control for hallway floor slab leveling project
- Site location surveys for various projects



KEVIN G. SMITH
DESIGNER/CADD TECHNICIAN

EDUCATION:

Raleigh County Vocational Ed. Center (1979)

REGISTRATIONS/AFFILIATIONS:

Civil I and Civil II Certificates

EXPERIENCE:

Stafford Consultants Incorporated (1998 to present)
Computects and DBD Professional Group (1998)
G. A. Tice Incorporated (1992 to 1997)
ESP Associates (1986 to 1992)
G. O. Bledsoe Incorporated (1981 to 1986)
Holly, Kenny, Shott (1980 to 1981)

DESIGNER AND CADD TECHNICIAN:

Assists with all phases of project development, from initial site survey to preparation of base mapping, project layout (roadways, parking, water, and sewer), geometric layout, erosion & sediment control plans, profiles, structural plans, and detail sheets. Projects include:

- 12 projects for the WVDoH including Coalfields Expressway, Grapevine Creek Bridge, Hutchinson Branch Bridge, Cass Arch Bridge, Mullens Bridge, North Lewisburg Roadway Widening, Bellepoint Road Widening, West Webster Road Intersection, and Craigsville Intersection.
- Chapmanville Regional High School in Chapmanville, Logan County (site layout)
- Parkersburg South High School in Parkersburg, Wood County (site layout)
- Bayer Federal Credit Union in Moundsville, Marshall County (site layout)
- Hilltop Elementary School in Sherrard, Marshall County (site layout)
- Cameron High School in Cameron, Marshall County (site layout)
- Weir High School Stadium in Weirton, Hancock County (site layout)
- Oak Glen High School Stadium in New Manchester, Hancock County (site layout)
- Weirton Elementary School in Weirton, Hancock County (site layout)
- Oakvale Elementary School in Oakvale, Mercer County (site layout and structural)
- Mercer County Health Center in Green Valley, Mercer County (site layout and structural)
- North Central Advanced Technology Center in Fairmont, Marion County (structural)
- Brooke County Middle School in Wellsburg, Brooke County (site layout and Revit structural model)

CHRISTOPHER A. GROSE, L.R.S.

Senior Engineering Associate



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

Geological/Geotechnical engineering related to subsurface exploration studies, soil and rock slope design, landslide causation studies, foundation system design, surface/subsurface hydrogeology, ground subsidence, contaminant transport and groundwater flow modeling. Planning, design, and permitting of natural gas production well pads and access roads. Geological study of hazardous waste remediation sites, CERCLA/SARA, RI, and FS report compilation, geological and geotechnical aspects of siting and design of municipal and industrial waste landfills.

PROFESSIONAL EXPERIENCE

Civil/Site Design

Civil/Site design included slope stability of both cut and fill slopes in soil and rock for various well production pads in northeastern West Virginia associated with natural gas production in the Marcellus well field. Work consisted of the management of a design engineering team including ground survey crews to development site topographic base mapping, coordination with client regarding land ownership, access roadway alignments, site drainage control, and number/location of production wells. Additional work also included gathering and midstream transmission pipeline locations. The scope of services for these projects also included the preparation of permit documents and attachments for submittal to the WV Department of Environmental Protection-Office of Oil and Gas.

- Stone Energy Corporation
 - Higgins East pad and road
 - Higgins West pad and road
 - Conley Well pad, road, and access bridge
 - Mills-Wetzel No. 3 pad and road
 - Hunter/Pethel well pad
 - Talkington-nice pad and road
 - Bowyers well pad and road
- Viking Oil & Gas
 - United Disciples of Christ well pad

Geotechnical

Completion of numerous subsurface exploration studies for active soil slope landslide failures associated with the development of natural gas production well pads and access roads. Work included the layout, surveying, and logging of subsurface borings to determine the depth and extent of the slope failures. Following collection of soil/rock samples, materials were tested for characteristic and strength properties. Following testing efforts, the failed slopes were modeled using computer-based slope stability design models to determine a stable configuration including the addition of rock buttresses, toe keys, underdrains, mid-slope keys, etc. Final stabilization plans were then prepared for the client allowing bidding and selection of a repair and stabilization contractor to perform the work.

- Stone Energy Corporation
 - Mills-Wetzel No. 2 well pad landslide repair
 - Potoczny well pad landslide repair
 - Mills-Wetzel access road landslide repair
 - Pribble Tank landslide repair
 - Haines Branch pipeline landslide repair
- Columbia Pipeline Group (TransCanada Pipeline)
 - SM8 pipeline landslide repair
 - SM80 Loop pipeline landslide repair
- Chesapeake Energy Corporation – R. Baker well pad landslide causation study
- TransEnergy Corporation – Dewhurst well pad landslide repair
- Reserve Oil & Gas – Reed No. 1 well pad access road landslide repair

West Virginia Division of Highways – Geotechnical engineer on geotechnical/landslide master services agreement for on-call services for a three-year period.

Forensic study, expert testimony, and legal support related to the failure of numerous soil/rock slopes throughout West Virginia. This work included extensive review of relevant project case documents, site reconnaissance visits, interviews with project personnel, and deposition testimony.

Lynn Elementary School – Technical insight and recommendations to attorneys representing an adjacent property owner related to the contributing factors related to the formation and continued failure of an excavated soil slope. The toe of the slope was excavated during the site development of the proposed elementary school site in Lynn, West Virginia.

Crichton & Crichton – Landslide formed along a wooded hillside below a residential driveway on Pleasant Lane in Wood County, West Virginia. The slope failure was noted during a substantial leak in an existing water main. The work included a review of case documents, interviews with various residents (plaintiffs in the case) and the development of supporting causation theory for the formation of the landslide. The work also includes the development of repair alternatives and associated construction estimates to be considered during the dispute hearing between the plaintiff and defendants.

Chesapeake Appalachia/Law Office of Jeffrey Mahal (R. Baker Natural Gas Production) – Provided technical study and file review of case documents related to the grading contractor's construction work efforts to prepare a well pad for the installation of a series of horizontal gas production wells in Marshall County, West Virginia. The work included the removal of soil and rock from and existing hilltop. The resulting material was placed or wasted in series of three side hill fills along the edges of the resulting well pad. All three of these fills experienced progressive and ongoing failures following the construction effort. Reviewed design documents, construction records, and details related to several repair attempts to result in the development of a professional opinion related to the various factors contributing to the multiple slope failures.

Nationwide Trial Division/Khan & Wheeler (Ross v. WVAW Landslide Case) – Provided professional opinion related to the formation of a slope failure along the Elk River immediately behind several commercial and residential homes near the Town of Elkview, West Virginia. The initial landslide occurred immediately following a main waterline break along the front of the structures. The regressive and prolonged failure continued over several weeks and ultimately damaged a gravity sanitary line as well as several of the structures. Work included an extensive review of several years of case records provided for the case including a review of existing utility maintenance records, historic climatologic data, river stage information and depositional testimony from many of the affected parties. A summary of professional opinion report was prepared describing a number of factors including lack of maintenance storm culverts in the area as well as an increase of saturation along the slope from the failed water main as the cause of the slide. It was determined that several of the structures were supported on previously placed fill material which was placed along the river bank in the early 1900's in

conjunction with the initial roadway construction. This coupled with the lack of maintenance and presence of deteriorated drainage culverts likely contributed to the slope failure. The initial installation of this fill material was determined through an extensive study of the historic topographic mapping of the area.

Responsible for development of geotechnical and geological recommendations as well as development of stabilization designs for many failed soil/rock slopes in West Virginia. This work included initial site reconnaissance visits, development of a subsurface exploration study and materials testing program, evaluation of stabilization alternatives, and construction plan preparation.

Travelers Insurance/City of Charleston – Project included a subsurface exploration study, engineering design, and global stability evaluation of a failed soil slope in a residential neighborhood on Bona Vista Drive for the City of Charleston, West Virginia. The slide was caused by a water main break along an existing residential neighborhood paved roadway. The recommended slope stabilization method was to install a soldier beam and lagging retaining wall along an existing paved roadway (supporting the buried utilities) with the remainder of the failed slope below being removed and replaced with compacted soil backfill.

Stone Energy Pribble Tank – Work included the exploration and study of a failed soil/weathered rock slope which was loaded through the placement of fill near the top of the slope to provide adequate area for the construction of 2- 2,400,000-gallon water storage tanks in New Martinsville, West Virginia. Shortly following the installation of the tanks, a large section of the hillside failed leaving one of the tank foundation partially unsupported. Following the subsurface exploration and drilling work, a stabilization plan was developed which included the removal of the failed soil mass (>50,000 CY) followed by the replacement of compacted soil material behind a large toe key and buttress. The repair also included surface diversion drainage ditches and numerous bond benches along the underlying rock line which were fitted with under drains to collect subsurface seepage.

NiSource/Columbia Gas Pipeline Group SM-80 Loop Gas Transmission Line – Development of a subsurface exploration and drilling plan to determine the extent and depth of a soil and weathered rock slope failure which threatened the performance and stability of a 30-inch high

pressure natural gas transmission line in Kanawha County, West Virginia. The slide location was remote and situated along a steep hillside. The stabilization plan recommended the use of soil nail technology due to the remote location and rather inaccessible nature of the location. This repair and stabilization technique allowed for the in-situ repair of the failed slope without extensive excavation and backfill which was deemed difficult and would have required more land disturbance resulting in additional slope stability concerns.

EQT Rockport #7244 Natural Gas Storage Well Pad – Project involved the assessment and repair recommendations for a section of failed fill slope immediately below existing and active natural gas storage well near the community of Rockport in Jackson County, West Virginia. The failed slope was caused by improper surface drainage control along the pad and access road. The stabilization plan included the excavation and removal of the failed slope following “shut-in” of the storage well. The upper failure scarp was situated immediately adjacent the well head which was protected during the stabilization work. Following installation of a rock toe buttress and key way, the failed soil material was amended using lime to reduce the moisture content which was required to achieve the recommended in place density during placement and compaction. Following the regrading effort, the slope was trimmed and seeded followed by the grading a several diversion and collection ditched to control runoff from the upper portion of the hillside below the well pad.

City of Charleston – Geotechnical assessment and development of regrading construction plans for the repair of a failed soil slope below Grandview Drive for the City of Charleston, West Virginia. The slope failure occurred between two adjacent residential structures and encompassed a sanitary sewer main as well as a storm drainage pipe receiving storm drainage from Grandview Drive. The stabilization plan involved the removal of the failed mass beginning at the toe of the slope and then working progressively upslope to result in a stabilized and regraded slope surface. The work required the removal of all failed material to the underlying rock surface and included the installation of a shot rock toe buttress which was installed along a natural topographic bench near the toe. Following completion of the work the affected utilities were installed either below the fill material or outside the regraded slide area.

Greer Industries Cheat River Quarry Haulroad – Project included the development of stabilization and repair recommendations for a failed soil slope which impacted a critical haulroad utilized by the quarry operator to move raw shot rock material from the quarry to the crusher at the aggregate plant in Rowlesburg, West Virginia. The landslide occurred because of the failure of a cross drainage culvert in the haulroad. The failed soil mass was removed to the underlying bedrock and following installation of a stone toe buttress and toe key, the material was blended with aggregate material from the plant and placed in compacted lifts. The underlying rock surface was excavated to result in a series of “bond benches” allowing for the installation of underdrains below the compacted fill to collect groundwater and seepage from the underlying rock. This prevented saturation of the fill material.

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.

General Services Administration – Site evaluation, including continuous HNU scanning of collected soil samples and installation of piezometers for two proposed sites near Charleston, West Virginia.

West Virginia Department of Environmental Protection – Foundation design for a proposed 1,000,000-gallon potable water storage tank and valve pit near Cassidy, West Virginia.

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

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

Roadway Design

Geotechnical engineer for various bridge and highway projects including:

- North Bridgeport Bypass
- McDowell County Schools
- Corridor H
- Dundon Bridge
- Sulphur Springs Bridge Replacement
- Smith Creek Bridge
- Martha Truss Bridge
- Martha Concrete Girder Bridge Replacement
- Dry Run Interchange
- I-81 Upgrade
- Platinum Drive
- Kenna Ridge Business Industrial Park/Access Road

Hardy County Rural Development Authority – Engineering services for the study, design, and preparation of construction contract plans, related documents, and construction oversight services for an industrial access road for the Baker Business Park District.

Roane County Development Authority – Site development construction documents for National Industrial Wholesale Lumber located in Roane County’s industrial park.

ZMM – Site design and engineering for a new elementary school and new high school in Bradshaw, West Virginia on the site of an existing elementary school.

West Virginia Department of Highways – Evaluation of subsurface conditions including both soil and rock to provide geotechnical recommendations related to potential bridge abutment foundation systems near Martinsburg, West Virginia. Alternatives included both shallow and deep foundations. Deep foundations were required at several abutments due to voids encountered in limestone bedrock.

Abandoned Mine Lands

WVDEP Abandoned Mine Lands and Reclamation – Preparation of Phase I and II water studies throughout the state of West Virginia. Work items included interview of area residents to determine major quality and quantity problems, field and records research to determine the location of known pre-law mining activity (which could potentially affect groundwater quality), collection of groundwater samples, and design of water distribution facilities.

WVDEP Abandoned Mine Lands and Reclamation – Subsurface investigation to determine the extent of a landslide for Courtright Highwall AML Project in Bridgeport, West Virginia. Field surveying was completed to establish topographic mapping and control, and subsequent design of landslide repair alternatives. Design ultimately selected included a reinforced slope using stabilizing grid. Landslide contained 400,000 cubic yards of material.

WVDEP Abandoned Mine Lands and Reclamation – Subsurface investigation, surveying, and design for reclamation of a large coal refuse pile and two mine entries for Vivian Refuse Pile AML Project in Vivian, West Virginia. Plans, specifications, cost estimate, coal refuse reprocessing evaluation, and supporting documents for regrading over 150,000 cubic yards of refuse, surface water control, mine seals, and riprap toe protection were completed.

WVDEP Abandoned Mine Lands and Reclamation – Subsurface investigation, surveying, and design for reclamation of three coal refuse piles and six mine entries for Kimball Refuse Pile AML Project in Kimball, West Virginia. Design included replacement of a water well and related supply piping for the Town of Kimball. Completed preparation of plans, specifications, cost estimate, coal refuse reprocessing report, permit for new well, and other supporting documents for reclaiming this large site with over ½ million cubic yards of reggrading.

WVDEP Abandoned Mine Lands and Reclamation – Project Engineer for the Mulberry (Stover) AML Landslide Project in Fayette County, West Virginia. Work included a difficult subsurface investigation, design of a remediation of landslide associated with abandoned mines, and preparation of plans and specifications for a reclamation project.

WVDEP Abandoned Mine Lands and Reclamation – Project Engineer for assessment of the Covey Creek Mine Fire AML Project Boone County, West Virginia. Work included subsurface investigation and temperature assessments inside an abandoned burning deep mine.

Oil and Gas

Columbia Gas Transmission Corporation – Design of stream relocation plans including preparation and coordination of applicable environmental permits. The

relocation was required due to an adjacent gas pipeline near the stream.

Columbia Gas Transmission Corporation – Preparation of several spill prevention control and countermeasure plans for gas storage well sites in Pennsylvania and West Virginia.

Mining

West Virginia Division of Environmental Protection – Engineering evaluations, including collection and analysis of core samples, for possible subsidence-related fracturing of several areas potentially affected by mining subsidence.

Peabody Coal Company – Subsidence evaluation and slope monitoring, using extensometers and tilt plates located on the slope face, of a 60-foot road cut experiencing subsidence-induced fracturing near Kopperston, West Virginia.

Mingo Logan Coal Company – Completion of formal subsidence control plan for a proposed 14,000-acre long-wall mining operation at the Mountaineer Mine in Wharncliffe, West Virginia.

Peabody Coal Company – Evaluation of potential stream flow attributed to long-wall deep mining subsidence in minimal overburden areas in southern West Virginia. Responsibilities included the review of mine maps, stream reconnaissance studies, and the establishment of three in-stream V-notch weirs. The weirs were monitored and maintained during a seasonal study period to generate direct flow measurements. The WVDEP also prepared a study for the site that was reviewed, and comments prepared for the results.

Evaluation of numerous failed soil fill slopes to determine probable failure mechanisms in order to develop remediation alternatives. Responsible for the development of regrading plans which included subsurface drains, benching schemes, and toe buttresses.

Completion of several environmental assessments for coal properties. Work included emphasis on both environmental and reclamation liabilities associated with pre-and post SMCRA sites on the properties.

- Massey Coal Services, Inc.
- Eastern Associated Coal Corporation

West Virginia Department of Environmental Protection – Engineering design of several wetland habitat areas relating to the effective remediation of a coal refuse disposal site in Glenville, West Virginia.

Preparation of several Article 3 surface mining permit applications for various West Virginia coal companies:

- Eastern Associated Coal Corporation – Proposed deep mine using longwall mining techniques in Boone County, WV, located in the Eagle coal seam.
- Hobet Mining, Inc. – Deep mine using conventional mining techniques near Madison in Boone County, WV. Located in the No. 2 Gas (Campbell's Creek) coal seam.
- Rum Creek Coal Sales – Deep mine using conventional mining techniques near Logan in Logan County, WV. Located in the Alma coal seam.
- Eastern Associated Coal Corporation – Surface mine mountain top removal techniques near Twilight in Boone County, WV. Located in the Coalburg and Lower Kittanning seams.

Landfills/Solid Waste/Waste Disposal

WVDEP Closure Assistance Program – Design of final landfill closure for abandoned solid waste facility. Design included diversion and collection channels, cap design, leachate collection system, and 150,000-gallon leachate storage tank in Montgomery, West Virginia.

American Cyanamid – Engineering design for the closure of a chemical waste landfill in Parkersburg, West Virginia. Completion of a settlement analysis to determine the expected consolidation of waste during dewatering. Cover design incorporated a composite liner system with synthetic drains. The cap utilized synthetic reinforcement to minimize consolidation-induced stresses on the synthetic liner.

West Virginia Department of Environmental Protection – Responsible for the development and design of several interim or maintenance related items associated with drainage at the Monongalia County Landfill in Morgantown, West Virginia. Included the design and upgrade of both new and existing channels, diversions to berms to minimize surface water infiltration and minimizing the amount of leachate generation.

American Cyanamid – Permit completion for closure of a chemical sludge impoundment near Parkersburg, West

Virginia. Analysis of existing monitoring well configuration.

Design, management, and project oversight during construction for the closure of a 7-acre biological sludge pond in Nitro, West Virginia. Preliminary design studies included the completion of batch tests to evaluate stabilization materials. Also handled the development and submittal of several permits associated with the project including erosion and sediment control plan, Army Corps of Engineers permit, and a wetlands investigation and nationwide 404 permit.

Development of closure design for a 14-acre inactive waste water treatment pond in Nitro, West Virginia. Responsibilities included evaluation of sludge stabilization technologies, types of reagent and mixing ratios to achieve the required in-place strengths. Conducted contractor interviews with the owner, as well as providing assistance to the owner during preparation of the construction contract. During construction, conducted weekly safety meetings on-site with the contractor. This project was also expanded to provide stabilization of a 1.5-acre digester basin adjacent to 14-acre pond. The original contract was extended to cover stabilization of this pond. Stabilization efforts included submittal of an Army Corps of Engineers' nationwide permit to stabilize the bank of the Kanawha River and application of a West Virginia NPDES General Stormwater Construction Permit.

North Fork Landfill – Permit completion for a new municipal landfill, including design and construction of monitoring wells to monitor several aquifers in Wheeling, West Virginia.

Sycamore Landfill – Part I permit completion, design, and implementation of a drilling program, including evaluation of an existing monitoring well configuration. Testing of existing site soils for sources of suitable liner material.

Rhone Poulenc Ag Company – Completion of several Part I Solid Waste Facility permits including the design and implementation of drilling programs, formal geological studies, hydrogeological analysis of proposed sites, and locations and development of upgradient and downgradient groundwater monitoring wells. Design, construction, and development of seven monitoring wells for a proposed 13-acre industrial waste disposal facility near Institute, West Virginia.

Storage Tanks

West Virginia Division of Natural Resources – Underground storage tank contamination study in Jesse, West Virginia. Delineation of a subsurface hydrocarbon contamination plume as well as possible flow direction to determine potential receptors.

Groundwater

Operation and maintenance of several groundwater remediation systems including pump and treat and sparge systems for a large chemical manufacturer in Nitro, West Virginia. The pump and treat technology is designed to recover kerosene in one instance and TCE in another. Both systems are safety oriented and are fully automatic. The sparge system is a study/field test to determine the impact that oxygen injection will have on the degradation of phenolic compounds existing in the groundwater.

Columbia Gas Transmission Corporation – Evaluation of numerous groundwater monitoring wells to determine the direction of migration and the feasibility of utilizing them in a planned pump and treat recovery system. The site was an active compressor facility located in Eastern Kentucky.

Design and completion of several geological and hydrologic investigations to determine nature and direction of groundwater flow associated with proposed limestone quarry sites in Nitro, West Virginia. The sites were all associated with Karst terrain and dual permeability systems and primarily fractured flow regimes. Studies included the deployment of drilling equipment to install groundwater monitoring wells.

Measurement of stratified in-site permeability of rock strata in NX boreholes in Hurricane, West Virginia. The permeability measurements were reviewed and evaluated to develop groundwater monitoring systems associated with both existing and proposed municipal landfill disposal facilities.

Rhone Poulenc Ag Company – Analysis and study of elevated levels of organic constituents and elevated pH values in existing monitoring wells. Study to determine if well construction techniques or development procedures contributed to the presence of these constituents.

Dilley's Mill – Review of regional groundwater information for a summer Boy Scout camp facility to locate and construct a replacement drinking water well for the facility. Responsibilities included the development and review of existing facility usage, determination of the location and depth of the proposed water well and design of the well to meet with the requirements of the State of West Virginia Department of Health standards.

Union Carbide Corporation – Design and completion of several monitoring wells to monitor an abandoned fly ash disposal area. Included hydrologic analysis of site geology to determine major aquifers present in the area.

Completion of several groundwater contamination studies in West Virginia. Contaminants included diesel fuel, gasoline, chlorobenzene and benzene. Studies included field exploration utilizing various methods including air and mud rotary drilling. Responsible for the setup, calibration, and analysis of groundwater computer models to lend insight into the flow regimes and dispersion characteristics of the potentially affected areas.

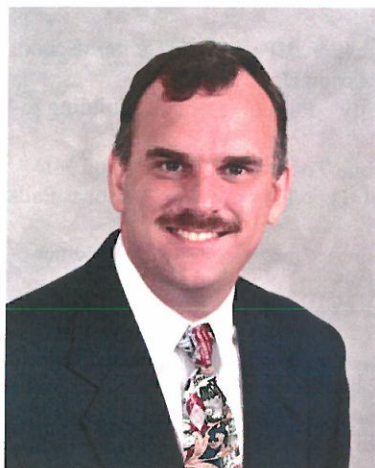
Preparation of Phase I, II, and III water studies throughout the state of West Virginia for the West Virginia Division of Environmental Protection, AML section. Work items included interview of area residents to determine major quality and quantity problems, field and records research to determine the location of known pre-law mining activity, which could potentially affect groundwater quality, collection of groundwater samples, and design of water distribution facilities.

ESAs (Phase I and II)

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

DAVID B. SHARP, P.E.

Branch Manager/Senior Engineer



and right-of-way plans; and municipal water and wastewater projects.

PROFESSIONAL EXPERIENCE

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:

- Family Dollar Store – Berkeley Springs, WV
- Rubbermaid Distribution Center Addition – Winchester, VA
- WVU Transportation Center/Parking Garage – Morgantown, WV
- 4 West Water Treatment Plant – Greene County, PA
- CA Ventures (9 story student housing building) – Morgantown, WV
- Copper Beech Student Housing (included 31 buildings, parking areas, and 11,250 linear feet of retaining walls) – Morgantown, WV
- Sunnyside Commons Student Housing (included three multi-story buildings, parking, and 43,000 sq. ft. of retaining walls) – Morgantown, WV
- WVU Engineering Building East Addition – Morgantown, WV
- Potomac State College Admissions Building Addition – Mineral County, WV
- Glenville State College Health & Sciences Building – Gilmer County, WV
- Glenville State College Residence Hall – Gilmer County, WV
- Christy Street Office Building – Morgantown, WV
- Harry Green Nissan Dealership Building Addition – Harrison County, WV
- Elkins Dodge Dealership – Randolph County, WV
- Sam's Club Fueling Station – Clarksburg, WV
- Wal-Mart Fueling Station – Connellsville, PA
- Cheat Lake Elementary School Building Addition – Monongalia County, WV
- Churchhill Village Housing Project – Monongalia County, WV

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 REGISTRATIONS

Professional Engineer – West Virginia, Virginia

PROFESSIONAL CERTIFICATIONS

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

AREAS OF SPECIALIZATION

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

- R.E. Michel HVAC Commercial Building – Monongalia County, WV
- ICM Islamic Center – Morgantown, WV
- Catlettsburg Refining Company – Alkylation and Wastewater Control Room – Catlettsburg, KY
- WVARNG Camp Dawson Fueling System – Kingwood, WV
- MEPCO Dock Expansion Project – Morgantown, WV
- West Run Student Housing (includes 16 buildings, parking areas, and 50,000 sq. ft. of retaining walls) – Morgantown, WV
- Fairmont Federal Credit Union – Bridgeport, WV
- Morgantown Waterfront Marina – Morgantown, WV
- Residence Inn – Morgantown, WV
- Suncrest Executive Office Plaza and Parking and Garage – Morgantown, WV
- WVU Research Park – Morgantown, WV
- View at the Park Apartment Complex – Morgantown, WV
- Marriott Hotel – Morgantown, WV
- Bucks Tavern – Morgantown, WV
- Stouts Run United Methodist Church Addition – Parkersburg, WV
- Fairfield Inn Hotel – Fairmont, WV
- Wendy's Restaurant – Morgantown, WV
- Sunoco Service Station – Robinson Township, PA
- St. Stephen Baptist Church – Morgantown, WV
- Islamic Center – South Charleston, WV
- Oak Hill Public Library – Oak Hill, OH
- Westside High School – Oceana, WV
- WVARNG Readiness Center – Summersville, WV
- Student Housing Facility, Parking Garage, Library/Information Center, Student Center Addition, Jomie Jazz Center, and Child Care Center for Marshall University – Huntington, WV
- U.S. Equipment Distributors – Huntington, WV
- PC WV #2 and #3 – Pace Carbon Fuels – Summersville and Eckman, WV
- WVU Luxury Box for Mountaineer Field – Morgantown, WV
- Marshall University Mid-Ohio Valley Center – Point Pleasant, WV
- Arbor Terrace Assisted Living Facility – Charleston and Huntington, WV
- Pocahontas County PSD Wastewater Treatment Plant – Snowshoe, WV
- Pt. Marion Water Tank Replacement – Pt. Marion, PA
- Monongalia General Hospital and Access Road – Morgantown, WV
- Kasson Elementary/Middle School Repair Project – Kasson, WV
- North Marion Vocational/Technical Center School Repair Projects – Marion County, WV
- Monongalia County Public Office Building – Morgantown, WV
- Numerous Cell Phone Towers in WV, PA, and MD
- Numerous Natural Gas Compressor Stations Pads and Additions:
 - EQT – Logansport Compressor Station Addition – Wetzel County, WV
 - EQT – Plasma Compressor Station Pad – Monroe County, OH
 - EQT – Corona Compressor Station Pad – Wetzel County, WV
 - EQT – Gemini Compressor Station – Geotechnical Feasibility – Marion County, WV
 - EQT – Gemini Interconnect Pad – Marion County, WV
 - Basic Systems, Inc. – Waynesburg Compressor Station Addition – Greene County, PA
 - Basic Systems, Inc. – Gettysburg Compressor Station Addition – Adams County, PA
 - Basic Systems, Inc. – Greencastle Compressor Station Addition – Franklin County, PA
 - Basic Systems, Inc. – Files Creek Compressor Station Addition – Randolph County, WV
 - Basic Systems, Inc. – Smithfield Compressor Station Addition – Wetzel County, WV
 - Dominion Transmission – Crayne Compressor Station – Green County, PA
- Numerous Marcellus Well Pad Sites – Northern WV:
 - Stone Energy – Mills Wetzel #3 Well Pad – Wetzel County, WV
 - Stone Energy – Conley Well Pad – Wetzel County, WV
 - Stone Energy – Langmyer Pad – Wetzel County, WV
 - Mountaineer Keystone – Mackey-Wolfe Well Pad – Barbour County, WV
 - Chesapeake Energy – Rayle Coal Co. Well Pad – Ohio County, WV
- Numerous Residential Geotechnical Projects – Charleston and Morgantown, WV
- Geotechnical Recommendations for Natural Gas Transmission Lines including Horizontal Directional Drilling Projects:
 - EQT Midstream – H-310 Coal Refuse Area – Monroe County, OH
 - EQT Midstream – Harrison County HDD – Harrison County, WV
 - EQT Midstream – Ohio River HDD – Wetzel County, WV and Monroe County, OH

Responsible for the coordination of subsurface investigation, laboratory testing program, slope stability

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

- Bowser Street Landslide Repair – Town of Granville – Monongalia County, WV
- Marshall Portal Access Road Landslide Repair – Greene County, PA
- Weekley Well Pad Landslide Repair – Wetzel County, WV
- Shupbach Ridge Road Landslide Repair – Wetzel County, WV
- Mills Wetzel #2 Well Pad Landslide Repair – Wetzel County, WV
- Mills Wetzel #2 Road Landslide Repair – Wetzel County, WV
- Potts Well Pad Landslide Repair (2 separate landslides) – Wetzel County, WV
- Haynes Branch Gas Line Landslide Repair – Wetzel County, WV
- Decker's Creek Mine Stockpile Area Landslide Repair – Preston County, WV
- Wentz Freshwater Impoundment Embankment Stability Repair – Barbour County, WV
- Columbia Gas Transmission – Well #7331 Slide Repair – Elkview, WV
- Cline Tower Landslide – Winfield, WV
- Wellford Tower Landslide – Clendenin, WV
- Massie Ridge Tower Landslide – Camp Creek, WV
- Fisher Landslide – Elkview, WV
- Kennawa Landslide – Charleston, WV
- Burlew Landslide – Charleston, WV
- Lee Landslide – South Charleston, WV
- Fairmont North Tower Landslide – Fairmont, WV
- 6th Street Tower Landslide – Huntington, WV
- Joyce Landslide – Chesapeake, OH
- WVAML Tupper's Creek Emergency Landslide – Tupper's Creek, WV
- Schmidt Landslide – Gallipolis, OH
- Disposal Service, Inc. Landslide – Hurricane, WV
- Wellston High School Landslide Repair – Wellston, OH
- Pribble Tank Landslide Repair – New Martinsville, WV
- Potokczny Well Pad Landslide Repair – Marion County, WV
- Ridgepoint Landslide Repair – Morgantown, WV

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

- Platinum Drive Urban Connector – Bridgeport, WV
- Segment of WV State Route 2 – Moundsville, WV
- Segment of National Road – Wheeling, WV
- Segment of North Bridgeport Bypass – Bridgeport, WV
- Corridor H, Section IV – Davis, WV
- Sulphur Springs Bridge – Hundred, WV
- Dry Run Interchange – Martinsburg, WV
- Interstate 81 Hainsville, Bessemer and Tuscorora Creek Bridges – Martinsburg, WV
- County Route 24 Bridge Replacement – Jackson County, WV
- County Route 3 Temporary Bridge – Jackson County, WV
- County Route 56 Temporary Bridge – Wetzel County, WV
- County Route 28 Bridge Replacement – Ritchie County, WV
- County Route 3 Temporary Bridge – Roane County, WV

Expert Witness

Served as Expert Witness in numerous cases involving geotechnical, earthwork construction, and/or drainage issues. Many of these cases involved a review of available information, development of professional opinions, issuance of an expert report, depositions, and expert testimony.

- JKLM Energy, LLC et. al. vs. Big Level Wind, LLC, John Hancock Life Insurance et. al. Court of Common Places of Potter County, Pennsylvania No. 86 CD 2017 – Construction, geotechnical and civil/site design associated with gas well pads
- Wilkins, Scott v. R&R Holdings – Civil Action 15-c-295 – Flooding and drainage

- Larry Rine, et. al. vs. Chesapeake Appalachia, LLC. Robinson & McElwee – Civil Action No. 5:11-CV-4 – Landslide on Natural Gas Well Pad
- Bisacca v. Pennsylvania Department of Transportation, Thomas J. Dempsey, Attorney at Law – Earthwork Construction Practices
- Sven Verlinden and Lisa Verlinden v. Morgantown Utility Board, et. al. Shuman, McCuskey & Slicer, PLLC – Civil Action No. 11-C-573 – Combined Sewer Flooding
- Russell D. Kitchen and Suzanne G. Kitchen v. Morgantown Utility Board – Shuman, McCuskey & Slicer, PLLC – Civil Action No. 11-C-745 – Combined Sewer Flooding
- Darin O. Arnold and Sarif J. Arnold v. Morgantown Utility Board – Shuman, McCuskey & Slicer, PLLC – Civil Action No. 11-C-749 – Combined Sewer Flooding
- Rider v. Fairmont Homes, LLC. – Flaherty, Sensabaugh & Bonasso, PLLC – Claim No. 1012802 – Landslide and Residential Construction Issues
- Thomas A. Logston and Joanne C. Logston v. Charles E. Kolb d/b/a Kolb Excavating – A.D. Baker Homes, Inc. and Alan D. Baker, Bowles, Rice, McDavid, Graff & Love – Civil Action No. 10-C-116 – Landslide Resulting in Property Damage
- LJH, Inc. v. Quadruple S. Farms, LLC and Four-S-Development, Bowles Rice LLP – Civil Action No. 09-C-438 – Rockfall and Commercial Construction Practices
- Mingo County Airport Authority Claim Against Appalachian Paving & Aggregate, Inc. – Robinson & McElwee, PLLC – Earthwork and Construction Related Issues
- Children's Home of Wheeling v. Cast & Baker, et. al. Civil Action No. 06-CV-374W – Geotechnical
- Colaianni Construction, Inc. Claim for Cost Recovery Against Koker Drilling at Wetzel County Hospital, Wellness Center Addition – Spilman, Thomas & Battle – Retaining Wall Failure Resulting in Building Damage
- Hilling Enterprises, LLC et. al. v. Midtown Motors, Inc. et. al. – Civil Action No. 13-C-308 – Landslide Causing Property Damage
- Stan-Corp v. Scott Properties, LLC. et. al. – Bowles Rice LLC – Landslide Impacting Roadway and Property

- Stephen C. Fish et. al. v. McCloy Construction et. al. – Bowles Rice, LLP – Civil Action 03-C-3050 – Structure Foundation Settlement
- Industrial Machine v. American Geotech – Bowles Rice, LLP – Civil Case 02-C-115 – Subsurface Exploration and Geotechnical Design
- Pell, Robert K., et. al. v. SAMOA, LLC, et. al. – Claim No. 010510386236 – Drainage Related Claim

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.:

- University Place Parking Garage – Morgantown, WV
- Sunnyside Commons Student Housing Project (included 5 multi-story buildings, 268 parking spaces, and 43,000 sq. ft. of retaining walls) – Morgantown, WV
- Coombs Farm Residential Development – Morgantown, WV
- Morgan Point Residential Subdivision – Morgantown, WV
- Town of Granville Boat Ramp Project – Granville, WV
- West Run Student Housing (1,000 bed student housing Project) – Morgantown, WV
- Copper Beech Student Housing (1,000 bed student housing project) – Morgantown, WV
- Summit at Cheat Lake Residential Development – Morgantown, WV
- Summit at Greystone Residential Development – Morgantown, WV
- Sleepy Hollow Residential Development – Morgantown, WV
- Shiloh Residential Development – Morgantown, WV
- Summerfield Residential Development – Morgantown, WV
- Mayfield Estates Residential Development – Morgantown, WV
- Cheat Landing Residential Development – Morgantown, WV
- Churchill Village Complex – Morgantown, WV
- Trinity Christian School Football Field – Morgantown, WV

- Morgantown Technical Services Industrial Expansion – Mt. Morris, PA
- WVU Beechhurst Parking Lot – Morgantown, WV
- Numerous Marcellus Well Pad Sites for Various Clients – Northern WV

Construction Monitoring

Project Manager/Engineer involved with and/or responsible for construction observation/testing on numerous construction projects. These projects routinely involved earthwork testing utilizing a nuclear density gauge and other test methods during earthwork placement and compaction. Many projects also included concrete testing including slump, comprehensive strength, air entrainment and/or floor flatness testing. The following is a summary of projects involving construction observation and testing:

- Sunnyside Commons Student Housing Project – Morgantown, WV
- Family Dollar Store – Smithfield, PA
- University Place Parking Garage – Morgantown, WV
- Church Hill Village Housing Project – Morgantown, WV
- Mills Wetzel #3 Well Pad – Wetzel County, WV
- Shupbach Ridge Road Landslide Repair – Wetzel County, WV
- Potts Landslide Repairs – Wetzel County, WV
- Pribble Tank Landslide Repair – Wetzel County, WV
- Potokczyn Landslide Repair – Marion County, WV
- Tucker County Industrial Park – Tucker County, WV
- Pocahontas County Landfill Cell 3 Expansion – Pocahontas County, WV
- Disposal Services Landfill Expansion Area – Hurricane, WV
- Platinum Drive Urban Connector Landslide Repair – Bridgeport, WV
- Trinity Christian School Football Field – Morgantown, WV
- Kasson Elementary/Middle School Pyrite Remediation Project – Barbour County, WV
- City of Philippi Water Improvement Project – Barbour County, WV
- Mackey Wolfe Well Pad – Barbour County, WV

- Morgantown Technical Services Expansion – Mt. Morris, WV
- Lakin Correctional Center – Wood County, WV
- Western Regional Jail – Cabell County, WV
- Merrick Creek Farm Commercial Development – Cabell County, WV

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

Sewer Lines and WWTs

Project Manager/Engineer on numerous public utility projects, such as sanitary sewer collection/treatment, as well as combined sewer/storm water improvements:

- Town of Marlinton CSO Project
- City of Buckhannon Sanitary Sewer Extension
- City of Glenville Infiltration/Inflow Study for the Sanitary Sewer
- Pocahontas County PSD Geotechnical and Environmental Permitting Services for Wastewater Improvement Project

Water Lines, Water Storage Tanks, and Water Treatment Plants

Morgantown Utility Board – Provide expert witness services on a routine basis.

Project Manager/Engineer on numerous public utility projects involving potable water supply. In most of the projects, it not only included the technical design, but also included assistance with funding applications, preparation of technical specifications and construction documents, assistance with bidding

documents, and construction
observation/administration.

- City of Wellsburg Water Improvement Project (plant upgrade and line extension) – Wellsburg, WV
- City of Glenville Water Improvement Project – Glenville, WV
- Preston County PSD #2 Howesville Water Improvement Project – Preston County, WV
- City of Philippi Water Improvement Project – Philippi, WV
- City of Philippi Water Tank Upgrade Project – Philippi, WV
- Town of Mill Creek Water Improvement Project – Mill Creek, WV
- Town of Marlinton Water Plant Assessment – Marlinton, WV
- Town of Huttonsville Water System Assessment – Huttonsville, WV
- Preston County PSD #2 Water Improvement Project – Preston County, WV

JEREMI J. STAWOVY, E.I.T.

Engineer

EDUCATION

- M.S. Civil/Environmental Engineering, 2011
West Virginia University
- B.S. Civil/Environmental Engineering, 2009
West Virginia University

EMPLOYMENT HISTORY

- 2013-Present Potesta & Associates, Inc.
2012-2013 Sci-Tek Consultants, Inc.
2009-2012 West Virginia University Geotechnical
Department
1993-2009 Quality Construction, Quality Crane
Service, and Sons

PROFESSIONAL REGISTRATIONS

Engineer-in-Training – West Virginia

PROFESSIONAL CERTIFICATIONS

Troxler Moisture – Density Gauge

OSHA Hazardous Waste Operations and Emergency
Response Training – 40 hour

TRAINING/RELEVANT COURSE WORK

- Pennsylvania One Call Web Ticket Entry Training
- Engineers Society of Western Pennsylvania – Simply
Smart Writing Tools Training

AREAS OF SPECIALIZATION

Involved with many aspects of Civil Engineering including Civil Site Design, Permitting, Construction Monitoring, Laboratory Testing, and Construction with a special interest in the Geotechnical/Environmental aspects.

PROFESSIONAL EXPERIENCE

Geotechnical

Responsibilities have included Geotechnical evaluations including management of subsurface explorations, settlement analysis, slope stability modeling, foundation

analysis, landslide repairs, well pad construction, roadway improvements/repairs, and commercial/residential construction.

Stahl Sheaffer Engineering – Roadway improvement projects. Completion of multiple field explorations and geotechnical reports for bridge and roadway improvements for the gas industry in Roane, Wirt, Wetzel, Ritchie, and Jackson counties, West Virginia.

Stagg Land Resources – Completion of over forty (40) test borings, associated laboratory testing, and sonic drilling for hydraulic fracking sands in Monahans, Texas.

CA Ventures, WVU Housing – Completion of eight (8) test borings, associated laboratory testing, and geotechnical recommendations for a combined shallow and deep foundation system for a proposed 13-story student housing project in downtown Morgantown, West Virginia.

EQT, Ohio River for Horizontal Directional Drilling (HDD) – Completion of 35 test borings, associated laboratory testing, and geotechnical recommendations at three sites in Ohio and West Virginia relating to a proposed pipeline and transmission pad projects.

American Campus Communities, Sunnyside Commons – Completion of 23 test borings, associated laboratory testing, geotechnical recommendations, civil site design, surveying, and construction phase geotechnical consulting/testing for a 5.4 Acre high-density student housing project in downtown Morgantown, West Virginia.

Glenmark Holding, LLC, Greenbag Road Development – Completion of four (4) borings, laboratory testing, geotechnical recommendations, civil site design, surveying, stakeout, and construction consulting on a commercial development in Morgantown, West Virginia.

EQT, Gemini Compressor Station and Interconnect – Completion of 11 borings, laboratory testing, wetland delineation, mine mapping/research, and preliminary geotechnical recommendations for a proposed compressor station and interconnect in Harrison County, West Virginia.

MEPCO, Marshall Portal – Completion of nine (9) borings and installation of one inclinometer, associated

laboratory testing, geotechnical recommendations, and slope stability monitoring/analysis at a deep mine shaft site to assist with stabilization of mine portal pad and access road near Mount Morris, Pennsylvania.

Town of Granville – Completion of five (5) borings, laboratory testing, geotechnical recommendations, civil site design, contract document preparation, and construction monitoring/testing for the Bowser Street Landslide Repair in Granville, West Virginia.

Stone Energy, Weekly Pad – Completion of several subsurface borings, laboratory testing, geotechnical recommendations, and installation of an inclinometer to monitor slope stability/movement at a natural gas well pad in Wetzel County, West Virginia.

Greer Industries, Cheat River Quarry – Completion of several subsurface borings, laboratory testing, geotechnical recommendations, civil site design, and construction monitoring/testing for the landslide repair and drainage improvements at a limestone mine/quarry in Preston County, West Virginia.

Carmeuse Lime and Stone – Slope stability modeling for proposed slopes for a limestone mine/quarry in Clear Brook, Virginia.

West Virginia Department of Environmental Protection, AML – Subsurface evaluation for Lake Lynn Complex near Morgantown, West Virginia. Drilling included drilling into the mines and setting piezometers to monitor the water levels in the mine.

Johnson, Mirmiran & Thompson – Subsurface evaluation for proposed bridge at West Virginia University Downtown Loop in Morgantown, West Virginia.

Harry Green Chevrolet – Evaluation of failed retaining wall near Bridgeport, West Virginia.

Wastewater Management – Subsurface evaluation for proposed waste water treatment plant at Snowshoe Resort in West Virginia.

Basic Systems – Construction monitoring of geotechnical recommendations (Geogrid system) at Waynesburg Compressor Station.

Stone Energy, Schupbach Ridge Slip – Retaining wall design/construction monitoring for roadway improvement/slip repair in Wetzel County, West Virginia.
Stone Energy, Conley Pad – Retaining wall design for well pad in Wetzel County, West Virginia.

Dodge Dealership – Subsurface evaluation for proposed building and site in Elkins, West Virginia.

Columbia Gas/Basic Systems- Chantilly Compressor Station- Completion of subsurface borings, laboratory testing, and geotechnical recommendations for a Compressor Station in Chantilly, Virginia.

Philadelphia Water Department (PWD) Queen Lane Water Treatment Plant- Completion of several subsurface borings, laboratory testing, and geotechnical recommendations in Philadelphia, Pennsylvania.

EQT – Subsurface evaluation for the pad:

- Corona Compressor Station
- Plasma Compressor Station

Rubbermaid Commercial – Subsurface evaluation for proposed building and site near Winchester, Virginia.

Great West Casualty Company – Geotechnical recommendations for a spill along I-68 at Bruceton Mills, West Virginia.

Stone Energy – Completion of several subsurface borings, laboratory testing, and geotechnical recommendations for a natural gas well pad in Wetzel County, West Virginia.

Geotechnical evaluations of encountered coal seams during residential construction and provided recommendations for construction of two separate homes in Harrison County, West Virginia.

- Roger Carter
- Chad Pokrzywa

FedEx – Concrete testing services for compressive strengths and air entrainment in Harrison County, West Virginia.

Civil/Site Design

Performed conceptual and final site designs which requiring roadways, erosion and sediment control,

stormwater drainage and management West Virginia Department of Environmental Protection (WVDEP) construction stormwater permits, West Virginia Division of Highways (WVDOT) entrance permits, water line, sanitary sewer line and pump design for multiple commercial and residential developments.

Coombs Farm Development- Surveying, civil site design, construction stormwater permitting, entrance permits in Morgantown, West Virginia.

Construction Observation

Performed construction observation for ongoing construction projects. Tasks included but were not limited to compaction testing, bearing capacity testing, moisture level testing, construction method observation for site development, utility line placement, pond construction, retaining walls, etc.

Columbia Gas/Basic Systems – Construction monitoring of geotechnical recommendations (Geogrid system) at Waynesburg Compressor Station in Waynesburg, Pennsylvania.

Sewer Lines and WWTP

Engineer on numerous public utility projects such as sanitary sewer collection/treatment, as well as combined sewer/storm water improvements.

City of Glenville – Infiltration/Inflow Study for Sanitary System in Glenville, West Virginia.

Hunting Hills – Infiltration/Inflow Study for Sanitary System. Design of improvements to waste water treatment plant. Permitting with WVDEP and WVDHHR in Monongalia County, West Virginia.

Additional Experience

Construction – Responsible for project management, safety management, preparing bids, purchase orders, and material delivery:

- Framing
- Roofing
- Siding
- Construction Planning
- Electrical
- Plumbing
- Earthwork
- Concrete Finishing
- Drywall
- Operator of cranes, backhoes, skid steers, excavators, etc.

Sand Hill Berries – Construction of a new winery facility. Management of framing, safety, and crane operations in Mount Pleasant, Pennsylvania.

Mennonite Church Camp – Construction of several large pavilions in Mount Pleasant, Pennsylvania. Management of earthwork, safety, framing, roofing, and concrete.

Construction of several structurally insulated foam panel homes (SIP homes). Management of framing, windows, doors, roofing, insulation, and concrete in Fayette and Westmoreland Counties, Pennsylvania.

Completion of many roofing projects including, asphalt shingles, metal roofing, and rubber/ multi layer flat roofing systems in Fayette and Westmoreland Counties, Pennsylvania.

Laboratory Testing

Responsible for soils lab at West Virginia University under a graduate research assistantship. Managed all testing and teaching of laboratory classes in accordance with ASTM standards. Installation and startup verification testing of modern GEOTAC testing equipment and software. Geotechnical laboratory research testing for the coal and gas industry.

DANA L. BURNS, P.E., P.S.

Vice President



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 REGISTRATIONS

- Professional Engineer – West Virginia, Illinois
- Professional Surveyor – West Virginia

PROFESSIONAL CERTIFICATIONS

40-Hour Health and Safety Training

SERVICE ON BOARDS AND COMMISSIONS

- Environmental/Technical Committee member – West Virginia Coal Association
- Environmental Committee member – Kentucky Coal Association

- Past Board of Directors member and current Waste Team Chairman on the Environmental Safety and Health Committee – West Virginia Manufacturers Association
- Environmental and Safety Committee member – Independent Oil and Gas Association of West Virginia
- Environmental Committee member – West Virginia Oil and Natural Gas Association
- Past President – West Virginia Society of Professional Engineers, Professional Engineers in Private Practice
- Past President and past Board of Directors member – American Council of Engineering Companies West Virginia Chapter
- Past Chairman of Transportation Committee – American Council of Engineering Companies West Virginia Chapter
- Past Board of Directors member – Society of American Military Engineers Huntington Post
- Member Committee D-18 on Soil and Rock – American Society for Testing and Materials (ASTM)

PROFESSIONAL AFFILIATIONS

- American Society of Civil Engineers
- National Society of Professional Engineers
- WV Society of Professional Surveyors

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. Directs engineering division including day-to-day operation of headquarters and three branch offices concerning staffing, coordination, training, business development; and overall management of technical and support staff.

PROFESSIONAL EXPERIENCE

Civil/Site Design

Utility extension, site grading plans, stormwater management, roadway design, and permitting for site development:

- Residential subdivisions
- Commercial developments

University of Charleston – Principal-in-Charge for the following projects:

- Development of topographic mapping of campus
- Evaluation of storm sewer system
- Civil site services – UC Pharmacy School, New Hall, Middle Hall, and Brotherton Hall
- Design of new campus entrance roadway

Marshall University – Principal-in-Charge for the following projects:

- 400 bed housing project
- Biotechnology Center
- Fifth Avenue parking and 6th Avenue parking facility
- Jomie Jazz Center
- Childcare Center
- Mid-Ohio Valley Center
- Campus landscape master use plan
- Campus improvements project
- MU Graduate College South Charleston campus
- Student Center and Henderson Center
- Bookstore addition
- University Heights

Glenville State University – Principal-in-Charge for the following projects:

- Student Residence Hall
- Athletic Convocation Center and Forestry/Survey Class Center

West Virginia University – Principal-in-Charge for a sidewalk repair project located near Allen Hall on the Evansdale Campus in Morgantown, West Virginia.

The Villages at Coolfont – Principal-in-Charge to provide environmental and engineering consulting services for the redevelopment of the Coolfont Recreation property in

Morgan County, West Virginia to create a second home community with high-end amenities:

- Phase I Environmental Site Assessment
- American Land Title Association (ALTA) boundary and property survey of 997 acres
- Completed an assessment of the facility's sanitary sewer wastewater treatment plant to facilitate acquisition of the property.
- Participated in week long planning charette with client, land planners, and other design consultants to assess characteristics of property, identify opportunities and constraints, obtain input from local residents and businesses, and develop design guidelines.
- Land use plan including 1,300 homes, a village center, spa, expansion of an existing lake, a proposed second lake, walking/hiking/biking trails, and the necessary infrastructure.
- Civil engineering design for potable water and wastewater treatment facilities.
- Selected source well locations, drilled 3 source test wells, and completed field testing and permitting.
- Designed 300 gallon per minute potable water treatment plant.
- Designed 2- 316,000-gallon water storage tanks and 75,000 LF of distribution system.
- Completed the design and permitting for a 448,000-gallon per day membrane bioreactor wastewater treatment plant, including the design of a 70,000 LF collection system.
- Assisted with permitting required for the development of the new lake and upgrades/expansion of the existing lake (included were Section 404 individual permit and Section 401 water quality certification).
- Prepared roadway and stormwater management plans, including typical pavement sections, road profiles, geometric layout plan, culvert and drop inlet sizing, drainage conveyance pipe and channel profiles, and miscellaneous stormwater management details.

City of Charleston – Inspection and preparation of rehabilitation design for Parking Garage No. 1.

Tucker County Industrial Park – Principal-in-Charge for the design which included water and sewer lines, stormwater management design, roadway design, pavement design, site grading plan, master plan, and geotechnical exploration/foundation recommendations.

Principal-in-Charge for site grading plans, stormwater management system, site surveying, roadway/parking lot design, wetland delineation/mitigation, and construction monitoring for the 400,000-square foot Coldwater Creek distribution center in Parkersburg, West Virginia.

Principal-in-Charge for the civil/site design for the new Sissonville Middle School in Kanawha County, West Virginia. Project included site grading plan with more than 230,000 cubic yards of earthwork to obtain 20 acres of level ground for a 74,000-square foot school, football field, soccer field, baseball field, access roadways, and parking areas. Project included utility designs for water service and sanitary and sewer. Stormwater collection systems and erosion and sediment control plan/permit completed.

Principal-in-Charge for civil/site design for new Riverview High School and Bradshaw Elementary School in McDowell County, West Virginia. Project included 2,500 linear feet of relocated WV Route 80, relocation of 1,200 feet of Oozley Branch, and site work (grading, stormwater drainage, geotechnical recommendations, sanitary sewer, water, and electrical services) to serve the two schools. Project design included site survey, geotechnical exploration, foundation recommendations, design of excavation slopes, layout of schools, parking areas and athletic fields, utility design, roadway relocations plans, and stream relocations plans. Responsible for the design and preparation of contract bid documents (specifications and drawings) for civil/site work. POTESta served as a subconsultant to ZMM on this project.

Principal-in-Charge for civil/site design and permitting associated with the construction of three synthetic fuel pellet plants in McDowell County, Nicholas County, and Kanawha County, West Virginia. Project included developing synthetic fuel manufacturing facilities on inactive surface mining sites. Services included subsurface exploration, foundation recommendations, grading plans, stormwater management plans, preparation of permit applications, and construction monitoring for site grading and foundation construction. The McDowell County site included a water source study to identify and select water sources for the manufacturing process. The three plants had a construction cost of \$25 million. Project was a design/build arrangement with POTESta working directly for the owner.

Carmeuse Lime & Stone – Principal-in-Charge of engineering and environmental services for the expansion of current quarry operations at Winchester quarry in Winchester, Virginia. The expansion includes the addition of two new vertical lime kilns and associated equipment, increasing their current aggregate crushing operation, and expanding their rail system to allow for increased shipping of product.

- Design included grading, stormwater management, and an access road crossing for a rail loop encircling the lime kilns and aggregate crushing areas with rail spurs for loading and unloading of product to connect to two mainline rail carriers.
- The total project track length consists of approximately 29,000 linear feet of rail.
- The design of the rail expansion includes trackside ditches, culverts, stormwater management systems, gas line relocations and crossings, rail crossings, and internal plant roadways, as well as grading for the expanded aggregate plant and lime kilns.
- Additional designs included civil/site services for a new office building and design of the sanitary water treatment system for this building.
- Acquired the necessary approvals to construct this project, such as approvals from local planning and zoning, inspections, health departments, and state governments such as Virginia Department of Transportation, Department of Environmental Quality (DEQ) and Department of Mining and Mineral Extraction (DMME).
- Conducted wetland delineations, developed reports, and completed applications to the Norfolk District (Northern Virginia field office) of the United States Army Corps of Engineers (USACE).

Development of specifications for a sand mound treatment system in the U.S. Air Training Center near Pittsburgh, Pennsylvania.

Water Lines, Water Storage Tanks, and Water Treatment Plants

New extensions and replacement of existing lines:

- Cassity Fork Water Supply Extension Project – Randolph County, WV (Project Manager)
- Godby Branch Water Supply Extension Project – Logan County, WV (Project Manager)
- Beaver Creek Water Supply Extension – Upshur County, WV (Project Manager)

- Buff Creek/Trace Fork – Putnam County, WV (Principal-in-Charge)
- Route 60 – Putnam County, WV (Principal-in-Charge)
- Boone County PSD numerous extensions – Boone County, WV (Principal-in-Charge)

West Virginia American Water Company – Principal-in-Charge for construction administration/monitoring for Poca River Water Line Extension Project, Cabell County Water Line Extension Project, Contract No. 7, Spite Road Water Line Extension Project, and Fisher Ridge Water Line Extension Project. Work included construction monitoring, preparation of weekly reports, review of contractor submittals, review of contractor invoices, and preparation of records drawings for 100,000+ linear feet of water line extensions.

City of Philippi – Principal-in-Charge for municipal water system upgrade project. Work included design of two replacement booster stations, two new water storage tanks, new pumps for an existing booster station, a 1,500-foot water line extension, and telemetry systems. Drawings, specifications, and a cost estimate were prepared.

West Virginia American Water Company – Principal-in-Charge for Residuals Handling Facility project at the 32 MGD Kanawha Valley Water Treatment Plant, including coordination design consultant. Design included sludge pumping station, 950,000-gallon reinforced concrete gravity thickener, two belt filter presses, chemical feed systems, plate settler, and associated control and piping. Work included preparing design concept, surveying, subsurface exploration, preparation of drawings, specifications, cost estimate and permit applications, conductance of pre-bid public relations meeting, evaluation of bids, construction observation, review of contractor submittals, review of change order requests, and review of contractor invoices.

West Virginia American Water Company – Principal-in-Charge for evaluation of Town of Pineville water treatment plant and water distribution system, including observation of system during site visit, records review, discussions with regulatory officials, and issuance of findings in a report.

Tucker County Development Authority – Principal-in-Charge for design of approximately 10,000 feet of water line and sewer line to serve an industrial park, including a lift station. Drawings, specifications, and a cost estimate

were prepared. Also performed construction administration services.

West Virginia Bureau for Public Health – Principal-in-Charge for services associated with Source Water Assessment Protection Plans (SWAPP) for 38 public water systems throughout West Virginia. Services provided included windshield surveys to identify and locate (via GPS) potential contaminant sources (PCS's), review of regulatory databases, entering data into Access database, and preparation of summary reports.

City of Philippi – Principal-in-Charge for relocation of water lines due to proposed roadway. Relocation included approximately 4,000 feet of 1-inch to 12-inch diameter pipe, fire hydrants, meters, and valves. Prepared construction drawings, specifications, and quantities.

West Virginia American Water Company – Principal-in-Charge for hydraulic analysis for water supply extensions (total of 23 miles) in Cabell County, West Virginia, including line sizing and design of booster station and PRVs.

Management of design, permitting, and construction monitoring of more than 40 miles of new waterline serving rural communities in southern West Virginia.

West Virginia Department of Abandoned Mine Lands – Detailed design and preparation of construction drawings, specifications, contractor's bid sheet, and engineer's cost estimate for six-mile water line extension including fire protection. Project included 90,000-gallon water tank, booster station, and pressure relief valves. Extension tied into Norton Harding Jimtown PSD System and served town of Cassity in Randolph County.

West Virginia Department of Abandoned Mine Lands – Detailed design and preparation of construction drawings, specifications, contractor's bid sheet, and engineer's cost estimate for a half-mile water line extension to serve Beaver Creek near Junior in Randolph County.

West Virginia Department of Abandoned Mine Lands – Management of four Phase II water studies and five Phase I water studies to determine if water supplies had been affected by coal mining. Work included resident interviews, mine map searches, area reconnaissance, obtaining water samples, reviewing water analysis data, preparing conceptual designs and associated costs and preparation of summary report.

Sewer Lines and WWTPs

Washington County Industrial Development Agency – Design of a holding tank and ventilation system vault near Houston, Pennsylvania.

West Virginia American Water Company – Principal-in-Charge for evaluation of wastewater collections systems and treatment plants for two municipalities (Oak Hill and White Sulphur Springs) in West Virginia. Included were site visits to observe system, discussions with system operators and regulatory officials, records review, compilation of DMR data and issuance of findings in reports.

Geotechnical

Subsurface exploration, evaluation, and design of remedial measure for landslides:

- Soldier beam and lagging retaining walls
- Gabion walls
- Grade/drain/compact in-place
- Geo-grid reinforcement with grade/drain/compact in-place

Plasma Processing Corporation – Management of subsurface exploration and preparation of soils report near Ravenswood, West Virginia.

West Virginia University – Principal-in-Charge for the following projects:

- WVU Intermodal Parking Garage on the Medical Center Campus – geotechnical and civil engineering
- WVU Engineering Building – geotechnical evaluation

Principal-in-Charge for Williamson Landslide Project involving an abandoned mine land site. Geotechnical exploration and design of 480-foot long soldier beam and lagging retaining wall with tiebacks to support loose mine spoil backfill along the edge of a previously mined area with steep terrain. Project was required to protect an existing 125-bed nursing home facility.

Landfills/Solid Waste/Waste Disposal

Design and permitting of new landfills and development of cell closure plans:

Municipal Landfills –

- West Virginia Solid Waste Management Board/Monongalia County Sanitary Landfill – Morgantown, WV
- North Folk Landfill – Wheeling, West Virginia
- Disposal Service, Inc. Landfill – Hurricane, WV
- Sycamore Landfill, Inc. – Hurricane, WV
- City of Charleston Landfill – Charleston, WV
- Mingo County Landfill – Mingo County, WV
- Omar Landfill – Omar, WV
- Pocahontas County Landfill – Marlinton, WV
- HAM Sanitary Landfill – Peterstown, WV
- Kanawha- Western Landfill – Cross Lanes, WV
- S&S Landfill – West Milford, WV
- Brooke County Landfill – Brooke County, WV
- Wetzel County Landfill – Wetzel County, WV
- WVDEP's Landfill Closure Assistance Program
 - Montgomery Sanitary Landfill – Montgomery, WV
 - Wyoming County Sanitary Landfill – Pineville, WV
 - Jackson County Sanitary Landfill – Ripley, WV
 - City of Moundsville Landfill – Charleston, WV

Industrial Solid Waste (Fly Ash, Bottom Ash, Scrubber Sludge) –

- Mobay Hazardous Waste Landfill – Natrium, WV
- American Cyanamid (4 projects) – Willow Island, WV
- Client confidential – Parkersburg, WV
- Monsanto Company (multiple projects) – Nitro, WV
- Harrison Power Station – Haywood, WV
- Fort Martin Power Station – Morgantown, WV
- Mount Storm Power Station – Mount Storm, WV
- Keystone Power Station – Elderton, PA
- New Castle Power Station – New Castle, PA
- Conemaugh Power Station – New Florence, PA
- Alcoa Corporation – Newsburg, IN
- Portsmouth Power Station – Portsmouth, VA
- F.B. Culley Power Station – Newburgh, IN
- Hatfield Power Station – Masontown, PA
- Armstrong Power Station – Armstrong County, PA
- Cheswick Power Station – Springdale, PA

Design, permitting, economic analyses, and preparation of construction bid documents for coal ash/refuse sites including HDPE and PVC liner systems:

- Virginia Electric and Power Company
 - Portsmouth Power Station ash pond to dry fill conversion project
 - Mount Storm Interim Ash Site
- Pennsylvania Electric Company

- Keystone Coal Ash/Coal Refuse Site
- Allegheny Power Station
- Hatfield Ash Site

WVDEP Office of Waste Management – Development construction drawings, technical specifications, contractor's bid sheet and engineer's cost estimate for closure of Montgomery Sanitary Landfill. Work included leachate collection system, cap and double walled leachate tank.

WVDEP Office of Waste Management – Development of construction drawings, technical specifications, contractor's bid sheet, and engineer's cost estimate for final closure of the Wyoming County Landfill. Work included site assessment, double walled leachate tank, pump station, and connection of leachate line to Center Public Service District sanitary sewer.

WVDEP Office of Waste Management – Development of interim closure plans including leachate collection system, adequacy of groundwater monitoring wells and soil cover for the Jackson County Landfill and the City of Moundsville Landfill.

WV Solid Waste Management Board's Monongalia County Sanitary Landfill – Management of three liner expansions, borrow area determination, minor permit modifications, 1.6 MG double-lined leachate pond design, construction monitoring, and investigation of future alternatives.

Disposal Services, Inc. – Evaluation of landfill expansion and leachate minimization. Preparation of permit application for Phase I Cell 3 and Phase II including drawings, specifications, and CQA manual. Preparation of construction drawings for Phase I Cell 3 Stage I and management of construction monitoring. Preparation of erosion and sedimentation control plan, soldier beam and lagging retaining wall, gabion basket retaining wall, and assistance on FERC permit to relocate gas line in Hurricane, West Virginia.

S&S Landfill – Preparation of Landfill Expansion Revisions, permit revisions, and permit negotiation. Detailed review of hydrogeology and groundwater flow regime. Management of QA/QC for landfill expansion including clay/synthetic liner system, double walled leachate tank, sedimentation pond, drainage channels, and associated facilities in Harrison County, West Virginia.

Pocahontas County Solid Waste Authority – Management of miscellaneous services including preliminary closure plan, evaluation of leachate treatment alternatives, repair of tear in synthetic liner, preparation of annual reports, and surveying for Pocahontas County Landfill in Marlinton, West Virginia.

Kanawha County Solid Waste Authority – Investigation of potential landfill fire at Kanawha Western Landfill. Detailed geologic and hydrologic studies, monitoring well installation, and preparation of associated sections of landfill permits.

- North Fork Landfill – Wheeling, WV
- Sycamore Landfill – Hurricane, WV

Rhone-Poulenc Ag Company – Management of non-hazardous industrial landfill design project involving design report, technical specifications, construction drawings, QA/QC manual, operation manual, permit application, and environmental assessment. Included meetings with EPA Region 3 and WV Division of Natural Resources. Also, three site selection studies. Complete geologic and hydrogeologic investigations including installation of monitoring wells.

Tennessee Valley Authority – Economic analyses of wet versus dry disposal processes, including conveyor belts, trucks, and sluicing by pipe for fly ash and bottom ash.

Pennsylvania Electric Company – Evaluation of natural and synthetic liner systems for coal ash/coal refuse sites. Preparation of permit applications for the New Castle ash site and Mitchell scrubber sludge disposal site:

- Pennsylvania Power Company
- Allegheny Power System

Coordinator of the compilation of data for a RCRA Part B permit application for a hazardous waste transfer facility in Parkersburg, West Virginia including SPCC plan.

Sludge sampling programs at the Institute, West Virginia plant of Union Carbide Corporation and the Tri-State Terminal of Ashland Petroleum Company.

Siting studies, including environmental impacts and economic analyses, for industrial waste and coal ash/refuse sites:

- Peabody Coal Company – slurry impoundment

- Rhone Poulenc Ag Company – 3 sites for industrial landfill
- Virginia Electric and Power Company – Mt. Storm Power Station
- Southern Indiana Gas and Electric Company – 4 sites at F.B. Culley Station
- Aloca Generating Corporation – 7 sites at Warrick Station

American Cyanamid Company – Management of QA/QC monitoring program for the first RCRA industrial waste impoundment in EPA Region 3. Composite liner system consisted of 3-foot soil-bentonite liner and two 60-mil HDPE synthetic liners separated by HDPE drainage net. Provided on-site testing laboratory. Daily and weekly project reports were provided. Prepared summary report and necessary “certifications” for submittal to WV Division of Natural Resources and EPA in Willow Island, West Virginia.

American Cyanamid Company – Management of QA/QC monitoring program for a stormwater retention basin consisting of 3’ soil bentonite liner with concrete overlay. Daily, weekly, and project summary reports were prepared in Willow Island, West Virginia.

American Cyanamid Company – Preparation of plans, specifications, and permit application for the closure of an industrial waste disposal site. The capping system included geogrid to assist in supporting the overlying HDPE liner and soil cap in Willow Island, West Virginia.

Electric Power Research Institute – Preparation of the Coal Ash Disposal Manual and various manuals for the High Volume/Low Technology Fly Ash Utilization Program.

Electric Power Research Institute – Development of a computer program that provides a detailed cost estimate for a coal ash disposal area.

Rhone Poulenc Ag Company – Evaluation of settling characteristics for an emergency fly ash disposal pond and design of associated modifications at a plant in Institute, West Virginia.

American Cyanamid Company – Management of QA/QC monitoring for a closure of a 3-acre hazardous waste disposal area with sludge stabilization and an HDPE cap. Provided an on-site testing laboratory, daily and weekly project reports, a summary report, and agency required certifications in Willow Island, West Virginia.

American Cyanamid Company – Management of QA/QC monitoring for the stabilization and capping of 10-acre hazardous waste equalization basin in Willow Island, West Virginia.

Rhone Poulenc Ag Company – Sampling/sounding of two basins containing sludge from secondary biological treatment of industrial wastewater and subsequent determination of sludge quantities.

Development of alternative truck transportation cost schemes:

- Industrial and Hazardous Waste Management Study – Allegheny County, PA
- Holcomb, KA Power Station – Sunflower Electric Cooperative
- Portsmouth Station remote ash structural fill – Virginia Electric and Power Company

Roadway Design

Principal-in-Charge for design of new entrance roadway to the University of Charleston and the utility extension, surveying, and general civil engineering for a 440-bed dormitory. Project was a design/build.

West Virginia Divisions of Highways – Inspection of bridge and highway construction.

Managed numerous industrial access roads. Roadways were designed for the private sector. Design was coordinated with and approved by the West Virginia Division of Highways and roadways were accepted into the state transportation system.

- ZMM Architects – Relocation of State Route 80 for construction of new elementary and high schools at Bradshaw in McDowell County, WV
- Jackson County Development Authority and Double C Enterprises – Industrial park access road and County Route upgrade in Kenna, WV
- Roane County Economic Development Authority – National Industrial Lumber access road in Amma, WV
- Tucker County Development Authority – Tucker County Industrial Park access road in Davis, WV
- Wood County Development Authority – Luigino’s access road in Parkersburg, WV
- University of Charleston – Design of new entrance road to University of Charleston and redesign of

MacCorkle Avenue (State Route 61) intersection/turn lanes in Charleston, WV

- N-Visions Architects – Entrance road, bus loop, and emergency exit roadway for new Sissonville Middle School in Sissonville, WV
- Entrance road and bus loop for Trap Hill Middle School in Raleigh County, WV

WV Division of Highways – Managed environmental permitting, surveying, and design of four-lane 1.25-mile North Bridgeport Connector Road from Interstate 79 Jerry Dove Interchange to Benedum Airport in Bridgeport, West Virginia.

WV Division of Highways under open-end agreements for:

- Landslides and slope stability projects
- Surveying
- Asbestos services

WV Division of Highways – Managed geotechnical, environmental, right-of-way, and survey work performed as a subconsultant for various projects:

- King Coal Highway (section near Pineville, WV)
- Sharon Heights Connector
- Eldora and Enterprise Connector
- Dundon Bridge
- Martha Truss Bridge
- Martha Concrete Girder Bridge
- Upgrade of three bridges on Interstate 81
- Corridor H (section near Kerns, WV)
- Corridor D (section near Washington, WV)

Oil and Gas

Columbia Gas Transmission Corporation – Management of consulting services for environmental report preparation and FERC permit applications for various natural gas pipeline projects.

Principal-in-Charge of well pad design, access road layout, landslide remediation design, evaluation of water supply sources and distribution systems, design of water treatment systems, impoundment design, stormwater management plans, permitting, AST inspections, surveying, and SPCC Plans for various major gas clients in the Marcellus and Utica formations.

- Stone Energy

- EQT
- Chesapeake
- Gastar
- NiSource

Storage Tanks

Principal-in-Charge of the registration, preparation of spill prevention response plans, and inspection of aboveground storage tanks (ASTs) for over 500 ASTs for numerous clients, including:

- NiSource
- Rubberlite
- CI Thornburg
- Tetra Technologies
- CAMC
- Interstate Hardwood
- Central Supply

Closure of aboveground storage tanks, including preparation of documentation for regulatory agency and sample acquisition and analyses:

- Rhone-Poulenc Ag Company – Institute, WV
- American Cyanamid Company – Willow Island, WV

Investigation of contamination from underground storage tanks and hydrocarbon spills. Included preparation of necessary regulatory forms, sample acquisition and analyses, and meeting with regulatory agency.

- West Virginia Division of Natural Resources – various projects under Master Agreement
- Goldman Associates
- Vandalia Mining Company
- Marshall University

Mining

Peabody Coal Company – Evaluation of potential stream flow attributed to long-wall deep mining subsidence in minimal overburden areas in southern West Virginia. Responsibilities included the review of mine maps, stream reconnaissance studies, and the establishment of three in-stream V-notch weirs. The weirs were monitored and maintained during a seasonal study period to generate direct flow measurements. The WVDEP also prepared a study for the site that was reviewed, and comments prepared for the results.

Principal-in-Charge on numerous Independent Third-Party Audits at sites for various coal producers. Independent Third-Party Reviews of mines/complexes were undertaken with a thorough review to assess compliance of the operation to various federal statutes and equivalent to state laws. Specific areas of review included are generally determined by the needs of the client or the requirements of governmental agencies and have included an assessment of the client's compliance with the following:

- Clean Air Act
- Clean Water Act
- Resource Conservation and Recovery Act
- Safe Drinking Water Act
- Toxic Substance Control Act
- Comprehensive Environmental Response, Compensation and Liability Act
- Emergency Planning and Community Right to Know Act
- Federal Insecticide, Fungicide and Rodenticide Act
- Oil Pollution Act
- Mine Safety and Health Administration
- Surface Mining and Reclamation Act
- National Pollution Discharge Elimination System
- Others as required

Development of reclamation plans for over 70 projects including landslides, mine fires, acid mine drainage, mine subsidence, refuse piles, water supply systems, and asbestos abatement. Projects were completed for West Virginia Division of Energy, West Virginia Division of Environmental Protection, Virginia Abandoned Mine Lands, and Ohio Department of Natural Resources and include the following:

- Duncan Hill Subsidence
- Beckley Subsidence
- Jonben (Haga) Subsidence
- Holden (Padgett) Subsidence
- Gray and Iaquina Subsidence
- St. John's Road Subsidence
- Route 19/28 Subsidence
- Mt. Hope Subsidence
- Huffman Street Subsidence
- Morgantown Airport Drainage/Subsidence
- Fairmont East Subsidence
- Fairmont IV Subsidence
- Cheyenne Sales Company Reclamation
- Little Whitestick Refuse
- Crany Mine Dump
- Morgan Mine Fire
- MacArthur Phase 2 Subsidence
- Lake Lynn Complex
- MacArthur Mine Subsidence
- East Lynn II
- Flipping Hollow Complex
- Sundial (Hatfield) Refuse Piles
- Mill Creek Refuse Pile
- John's Branch Coal Refuse Dam
- Jessop Highway #10
- Lando (Edwards) Drainage
- Taylorville (Cantrell) Drainage
- Borderland (Matney) Portals
- Peach Ridge Complex
- Measle Fork Refuse
- Georges Creek Portals
- Putney Impoundment
- Kopperston (John's Branch) Refuse Emergency
- Marmet (Wells Drive) Landslide Emergency
- Marmet (Clark) Drainage
- Pringle Run #2
- Mountain Run Refuse and Portals
- Fairmont East Mine Drainage
- May Portal (Virginia Abandoned Mine Lands)
- Williamson (Hatfield) Landslide
- Georges Creek (Lucas) Rockslide
- Rachel Refuse
- Grass Run Refuse
- Allen Sheridan Hazardous Facility (asbestos)
- Elk City- Century- Volga Phase I/II Water Study
- Camp Mohonegan Regrade
- Comfort Run Coal Company (asbestos)
- Allen AMD
- Cora Mine Drainage No. II
- Covey Creek Mine Fire
- Vivian Refuse Pile
- Summerlee Refuse Pile (won 1996 southern reclamation award)
- Kimball Refuse Pile (won 1995 southern reclamation award)
- Hampden (Smith) Landslide
- Bear Run Refuse (won 1994 Ducks Unlimited award)
- Charleston (Ratcliffe) Landslide
- Garrison Complex
- Mulberry Fork (Stover) Landslide
- Courtright Highwall
- Belle Landslide
- Minden Drilling
- Kitchen/Gibson Landslide
- High Coal Tipple

- Omar Refuse Pile (won reclamation of the year award)
- Logan Drainage
- Switzer Adams/Robinson Drainage
- Follansbee Drainage
- Hawkins AMD
- Vargo Drainage
- Duck Creek Landslide
- Kistler Mine Fire
- Turner Douglas Complex
- Buffalo Creek No. 5 Refuse
- Dawmont Mine Facility
- Helen (Lewis) Refuse
- Upshur 10/15 Drainage
- Webster County Water Studies
- Jaeger Water Feasibility Study
- Burnwell, Standard, and Collinsdale Water Line Extension
- Clay-Roane PSD Water Feasibility Study
- Burnsville PSD Water Feasibility Study
- Brandonville/Pisgah Water Feasibility Study
- Cuzzart/4-H Water Feasibility Study
- Hudson/Mt. Nebo Water Feasibility Study
- Phase I Water Studies Brooke and Fayette Counties
 - Gauley River PSD – Belva
 - Hammond PSD – Wellsburg
 - New Haven Chamber of Commerce – Hico
- Mill Creek Regional Water Project Phase II Water Study (Boone, Lincoln, and Logan Counties)
- Godby Branch Phase II Water Study
- Madison Street Portals/Fairview Route 218 Portals
- Putnam County Phase I Water Studies
 - Heizer Creek
 - Manila Creek
- Boone County Phase I Water Studies
 - Jeffrey Area – Jeffery, Hewett Creek, Seacoal
 - Ottawa Area – Ottawa, Greenview, Missouri Fork, Meadow Fork, Aleshire Branch, Dent Fork, Mike's Fork
- Phase II Water Feasibility Studies
 - Logan County – Cow Creek, Crooked Creek, Upper Rum Creek
- Phase I Water Studies for Logan County
 - Pecks Mill – Godby Heights Communities
 - Cow Creek – Sarah Ann – Crystal Blocks Communities
 - Upper Rum Creek Community
 - Clothier Community
 - Crooked Creek Community
 - Godby Branch
 - Whitman Creek – Holden Project
- Beaver Creek Waterline Extension: Phase II Water Project

- Cassity Fork Water Supply Extension: Phase II Water Project

Subsurface explorations, subsidence monitoring, review of a coal reserve analysis, site plans, preblast/presubsidence surveys, hydrologic analyses, preparation of mining permits, and design and permitting of coal slurry impoundments for coal mining companies in West Virginia, Virginia, Kentucky, Ohio, and Maryland.

- Peabody Coal Company
- Eastern Associated Coal Company
- Southern Ohio Coal Company
- Island Creek Corporation
- Massey Coal Services
- Appalachian Mining, Inc.
- Oneida Coal Company
- Old Ben Coal Company
- Mettiki Coal Company
- Shafer Brothers Coal Co.
- LP Minerals

Management of fly ash utilization permits for various coal companies:

- Rawl Sales, Inc.
- Elk Run Coal Company
- Appalachian Mining, Inc.
- Peerless Eagle Coal Company

Managed subsurface investigation, foundation design, and development of mine stabilization program for NASA's Independent Verification and Validation Center in Fairmont, West Virginia.

Monongahela Power Company – Development of fly ash flowable fill specification for submittal to WV Division of Highways in Fairmont, West Virginia.

Computer modeling of groundwater movement of contaminants resulting from underground coal gasification.

NPDES Industrial/Municipal Permitting

Completed National Pollutant Discharge Elimination System (NPDES) renewal permitting and associated agency negotiations for several facilities.

Plasma Processing Corporation – Management of numerous projects in Ravenswood, West Virginia including:

- Subsurface exploration and preparation of soils report
- NPDES Permit
- Development of sampling program for Plasma to follow in obtaining samples for NPDES Stormwater Analyses
- Development of hazardous waste operations manual
- Acquisition of WV Air Pollution Commission permits
- Environmental audit of facility operations

Hydrology and Hydraulics

City of Charleston – Hydrologic and hydraulic analyses of South Ruffner Watershed. Project analyzed various storm events and presented conceptual recommendations to reduce effects of these storms.

U.S. Army Corps of Engineers, Jacksonville District – Determination of watershed areas along the Suwannee River Basin.

Groundwater

Dilley's Mill – Principal-in-Charge for review of regional groundwater information for a summer Boy Scout camp facility to locate and construct a replacement drinking water well for the facility. Responsibilities included the development and review of existing facility usage, determination of the location and depth of the proposed water well and design of the well to meet with the requirements of the State of West Virginia Department of Health standards. Design of sewage collection system and synthetic lined sewage treatment lagoon including permitting.

Groundwater sampling programs:

- Herr's Island – Urban Redevelopment Authority of Pittsburgh
- Robertshaw Controls in New Stanton, PA
- New Castle Power Station
- Pennsylvania Power Company
- Portsmouth Power Station
- Virginia Electric and Power Company
- Rhone Poulenc Ag Company – Institute, WV

Management of pump tests:

- Peabody Coal Company – Bim, WV
- Southern Ohio Coal Company – Meigs County, OH
- Rhone-Poulenc Ag Company – Institute, WV

Rhone Poulenc Ag Company – Development of specification manual for conducting soil and groundwater sampling programs. Manual detailed decontamination methods and proper handling/disposal methods in Institute, West Virginia.

Air Pollution/Air Services

Principal-in-Charge for internal and external methane gas monitoring at nursing home facility in Boone County, West Virginia.

Urban Redevelopment Authority of Pittsburgh – Preliminary and detailed air pollution modeling for Pittsburgh's convention center complex and for the Washington Heights development.

Eastern Associated Coal Corporation – Management of certified emission statements for 11 coal preparation plants and air emission inventories for 8 coal preparation plants for submittal to the West Virginia Office of Air Quality.

Nicholson Construction Company – Operation permit from West Virginia Air Pollution Control Commission for cement/grout portable batch plant for mine subsidence control project in Follansbee, West Virginia.

Stream/Wetland Delineation, Permitting and Mitigation

Columbia Gas Transmission Corporation – Management of stream stabilization and restoration plan for segment of East Fork of Queer Creek in Hocking County, Ohio.

Environmental Assessments/Impact Statements

Management of numerous environmental assessments for property transactions:

- Arch Coal – Multiple WV Tracts ESA (60,500 acres)
- Massey Coal Services – Red Cedar Surface Mine (850 acres)
- Duke Energy – Chicopee Environmental Audit (6,000 acres)

- Pittston Coal Management Group – Phase I ESA (6,000 acres)
- Massey Coal Co. – Hampton Site, Spruce Laurel (130 acres)
- Eastern Associated/Peabody Coal – Phase I ESA (1,035 acres)
- Eastern Associated Coal – Environmental Due Diligence for Active and Closed Operations in KY and WV (100,000 acres)
- Peabody Coal – Multi-state Environmental Audit in WY, CO, NM, AZ, Western KY, IN, IL (250,000+ acres)
- Peabody Coal – Environmental Due Diligence for Properties in IL and IN (150,000+ acres)
- AMVEST Mineral Services – Phase I ESA (8,000 acres)
- Peabody Energy Corp. – Phase I ESA on Putnam Property (1,036 acres)
- Arch Coal – Environmental Compliance Audit in KY, WV, and VA (150,000+ acres)
- Massey – Consolidated Coal Co. Holden Complex (5,500 acres)
- Massey – Environmental/Reclamation Liability Assessment for Northland Resources (150 acres)
- Peabody Coal – Phase I ESA for Imperial Coal and Turner Properties (5,400 acres)
- Peabody Group – Environmental/Reclamation Liabilities for Kanawha Eagle, LLC Permits in Boone and Kanawha Counties, WV (350 acres)

Principal-in-charge for the Coalfields Industrial Site Survey performed for the West Virginia Development Office. Study identified and evaluated more than 1,000 former and current mining sites for use as industrial sites. McDowell County was one of six included in the study. The study considered accessibility, utility status and distance of required extensions, topography, site size, etc.

West Virginia Division of Highways – Coordination of Environmental Impact Statement for Route 19 upgrade from Summersville to Interstate 79 in Braxton County and New River Parkway from Sandstone Falls on I-64 to near Athens on I-77.



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

Geotechnical engineering with an emphasis in natural gas production well pads and access roads, retaining wall design and analysis, landslide repair design, foundation recommendations, slope stability analysis, civil/site design, construction monitoring, and soil compaction testing.

PROFESSIONAL EXPERIENCE

Civil Site Design

Numerous project involving site grading, utility layout, permitting and infiltration design.

Stonerise Healthcare Eastbrook Facility – Project involved design of two segmental retaining walls, two parking lot designs, sanitary line, culvert design to cover 250 plus feet of stream and the coordination with local utility providers.

University of Charleston Innovation Center – Existing utility location, infiltration design, site grading, and new utility layout.

Geotechnical

Travelers Insurance/West Virginia American Water – Prepared plans to repair landslides caused primarily by waterline breaks.

- George Washington High School Slip – retaining wall with stone backfill
- Haden Residential Landslide – reinforced soil slope
- Gibson Residential Landslide
- Reynolds Residential Landslide
- Bona Vista Landslide – retaining wall design

Responsible for subsurface exploration, slope stability design, landslide repair and remediation, soil/rock laboratory analysis, 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

AECOM – Subsurface exploration that resulted in geotechnical engineering design recommendations for the planned Marshall University (Marshall) Soccer Complex Facility in Huntington, West Virginia. This indoor practice facility is located on a 4.3-acre tract of land which is situated between 4th and 5th Avenue. This project consisted of a new outdoor soccer field, 1,000 plus stadium seating, parking lot and associated building with locker rooms, coach's offices, concession area and ticket office.

AECOM – Subsurface exploration to result in geotechnical engineering design recommendations for the planned Marshall University (Marshall) Indoor Athletic Facility at Marshall University in Huntington, West Virginia. This indoor practice facility is located to the east of the existing Marshall stadium on a 6-acre tract of land which is situated near 3rd Avenue. This project consisted of a new indoor practice facility and integrated masonry office and classroom structure which will house the sports medicine department.

Huntington Sanitary Board, North Edgemont Road Landslide – Completed subsurface exploration, installation of six inclinometers to monitor the slope stability and overall movement of the slope, laboratory test/inclinometer data evaluation, as well as worked with the Huntington Sanitary Board and community to evaluate possible stabilization options.

Basic Systems- Numerous geotechnical evaluations on Columbia Gas and TransCanada compressor stations related to station upgrades in West Virginia, Ohio, Pennsylvania, and Virginia:

- Files Creek Compressor Station
- Crawford Compressor Station
- Loudoun Compressor Station
- Lost River Compressor Station
- Cleveland Compressor Station
- Elk River Compressor Station
- Nineveh Compressor Station
- Strasburg Compressor Station
- Waynesburg Compressor Station
- Seneca Rocks Compressor Station
- Chantilly Compressor Station
- Smithfield Compressor Station
- Greencastle Compressor Station
- Gettysburg Compressor Station

Cross Development- Numerous geotechnical foundation design reports for Dollar General Stores throughout West Virginia:

- Beverly Dollar General
- Varney Dollar General
- Burlington Dollar General
- Hinton Dollar General
- Smithers Dollar General
- Slansville Dollar General
- Quiet Dell Dollar General
- Wilkenson Dollar General
- Danville Dollar General
- Lerona Dollar General
- Gallipolis Dollar General
- Walker Dollar General
- Ghent Dollar General
- Keyser Dollar General
- Lookout Dollar General
- Salt Rock Dollar General
- Dixie Dollar General

VICTOR M. DAWSON, P.S.

Professional Surveyor



EDUCATION

A.S. Land Surveying
Glenville State College

EMPLOYMENT HISTORY

1998-Present	Potesta & Associates, Inc.
1993-1998	Dunn Engineers
1988-1993	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 REGISTRATIONS

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

PROFESSIONAL AFFILIATIONS

- North Carolina Society of Land Surveyors
- South Carolina Society of Land Surveyors
- American Congress on Surveying and Mapping
- West Virginia Society of Professional Surveyors, Board of Directors, Greater Kanawha Valley Chapter, 2012-present

AREAS OF SPECIALIZATION

Expert Witness/Case Preparation, Accident Surveys, ground control, construction stakeout, topographic mapping, boundary and property surveys including ALTA/NSPS surveys, As-built 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

Transportation:

- Merritt's Creek Connector Road, WVDOT – Preliminary route survey of four-lane roadway. Crew Chief/Project Manager for work that included courthouse research, property owner questionnaires, stake proposed centerline, tie to properties, set and reference construction control points in Barboursville, West Virginia.
- Benton's Ferry Bridge Replacement, WVDOH – Chief/Project Manager for work that included topo survey of project area, property owner questionnaires, tie to property lines, river cross sections, stake and reference centerline and construction control points in Fairmont, West Virginia.
- Corridor H, WVDOH, Section 16 – Project Manager for route/location/design survey in Elkins, West Virginia.
- Tablers Station, WVDOH – Project Manager/Crew Chief for route/location/design survey in Berkeley County, West Virginia.
- North Bridgeport Connector Road, WVDOH – Crew Chief/Project Manager for work that included GPS control survey of project area, preliminary route survey of centerline, tie to property lines, stake and reference centerline and construction control points, courthouse research, property owner questionnaires in North Bridgeport, West Virginia.
- Corridor H, WVDOH, Section 15 – Crew Chief/Project Manager for work that included courthouse research, property owner questionnaires, GPS control of project area, preliminary route survey of centerline, tie to property lines, stake and reference centerline and construction control points in Elkins, West Virginia.

- Corridor D, WVDOH, Martown Section – Crew Chief/Project Manager for work that included courthouse research, property owner questionnaires, GPS control of project area, preliminary route survey of centerline, tie to property lines, stake and reference centerline and construction control points in Parkersburg, West Virginia.
 - Martha Truss Bridge Replacement, WVDOH – Crew Chief/Project Manager for work that included topo survey of project area, property owner questionnaires, tie to property lines, river cross sections, stake and reference centerline and construction control points in Milton, West Virginia.
 - Martha Girder Bridge Replacement, WVDOH – Crew Chief/Project Manager for work that included topo survey of project area, property owner questionnaires, tie to property lines, river cross sections, stake and reference centerline and construction control points in Milton, West Virginia.
 - Smith Bridge – Project Manager for work that included topo survey of project area, property owner questionnaires, tie to property lines, river cross sections, stake and reference centerline and construction control points in Wetzel County, West Virginia.
 - Opaquen Bridge, WVDOH – Project Manager for work included topo survey of project area, property owner questionnaires, tie to property lines, river cross sections, stake and reference centerline and construction control points in Wetzel County, West Virginia.
 - King Coal Highway, WVDOH – Project Manager for work that included courthouse research, property owner questionnaires, GPS control of project area, preliminary route survey of centerline, tie to property lines, stake and reference centerline and construction control points in Mingo County, West Virginia.
 - Sharon Heights Connector Road, WVDOH – Project Manager for work that included courthouse research, property owner questionnaires, GPS control of project area, preliminary route survey of centerline, tie to property lines, stake and reference centerline and construction control points in Mingo County, West Virginia.
 - Kanawha Turnpike, WVDOH, Charleston – Project Manager for work that included courthouse research, property owner questionnaires, GPS control of project area, preliminary route survey of centerline, tie to property lines, stake and reference centerline and construction control points in Charleston, West Virginia.
 - East Huntington Bridge, WVDOH – Crew Chief/Surveying Supervisor for work that included annual bridge inspection survey of cable stay bridge over the Ohio River in Huntington, West Virginia.
 - Corridor H, WVDOT, Section 16 – Project Manager/Crew Chief for preliminary route/design survey in Elkins, West Virginia.
 - VDOT – Route 265 in Danville, Virginia.
 - NCDOT – NC 218 hydraulics in Wilkesboro, North Carolina.
 - NCDOT – B-1277 Bridge hydraulics in Marion, North Carolina.
 - NCDOT – NC 1318 Bridge in Taylorsville, North Carolina.
 - NCDOT – Charlotte Outerloop Drainage in Charlotte, North Carolina.
 - NCDOT – NC 90 Drainage in Charlotte, North Carolina.
 - Crew Chief for Sardis Monroe Intersection Widening in Charlotte, North Carolina.
 - WVDOT – Crew Chief for Corridor G in Charleston, West Virginia.
 - Florida DOT – Crew Chief for Dame's Point Bridge in Jacksonville, Florida.
 - Corps of Engineers – Crew Chief/Quality Control Representative for St. George Harbor in St. George Island, Alaska.
- Ground Control:
- Peabody Coal – Project Manager for ground control for 20 square miles of mapping in Putnam and Mason Counties, West Virginia.
 - Crew Chief/Project Manager for Belmont Community Development in Charlotte, North Carolina.
 - Crew Chief/Project Manager for Asheville Regional Airport in Asheville, North Carolina.
 - Lenoir Rhyne College – Crew Chief for aerial photo control in Hickory, North Carolina.
 - Crew Chief for Wilkinson Boulevard aerial photo control in Charlotte, West Virginia.
 - Crew Chief for Park Road aerial photo control in Charlotte, North Carolina.
 - Crew Chief for Beatties Ford Road aerial photo control in Charlotte, North Carolina.
 - Crew Chief/Project Manager for Freedom Park aerial photo control in Charlotte, North Carolina.
 - Crew Chief for ERM Ground Control Survey in Aberdeen, North Carolina.

Utilities:

- Cogentrix Energy – Surveying Supervisor for work included GPS control survey of project area, boundary survey of 292 acres, topographic survey of 177 acres for site construction, courthouse research in Marshall County, West Virginia.
- Big Sandy Peaker Plant, Constellation Power – Crew Chief/Surveying Supervisor for work that included GPS control survey of project area, boundary and topographic of 42 acres, boundary and route survey for 1 mile of transmission lines, construction stakeout in Cabell County, West Virginia.
- Paintsville Power Plant, Energy Services – Survey Supervisor for work that included control and topographic survey of a 180-acre site for proposed power plant in Paintsville, Kentucky.
- Greenbrier Pipeline, Dominion – Survey Supervisor for work that included control and preliminary route survey of a 264-mile pipeline running from Corton, West Virginia to Raleigh, North Carolina.
- Upshur County Power Plant, Dominion – Survey Supervisor for work that included control survey and construction survey of a 170-acre power plant in Upshur County, West Virginia.
- Nextel - Crew Chief/Survey Supervisor for cellular telephone tower sites for work that included courthouse research, boundary and topographic survey for 86 tower locations in West Virginia, Kentucky, and Ohio.
- Crew Chief/Project Manager for Little Sugar Creek Channel Improvements in Mecklenburg County, North Carolina.
- Crew Chief/Project Manager for Charlotte Stormwater Management in Charlotte, North Carolina.
- Crew Chief for Boy Scout Camp in Mecklenburg County, North Carolina.
- Crew Chief for Manchester Creek HEC Study for Rock Hill, South Carolina.
- Crew Chief Thermoco-Welco Water and Sewer in Kings Mountain, North Carolina.
- Crew Chief for proposed sewer route survey in Spencer, North Carolina.
- Moores Chapel, McIntyre East and West Plant Road, Hampton Park, Charlotte-Mecklenburg Utility Department in Charlotte, North Carolina.
- Crew Chief for Charlotte-Mecklenburg Utility Department in Charlotte, North Carolina.
- West Virginia American Water Company – Crew Chief/Survey supervisor for boundary survey for 180 water tank sites throughout West Virginia.
- Crew Chief for Chester Waterline Extension in Chester, South Carolina.
- Crew Chief for Lancaster Sewer Extension in Lancaster, South Carolina.
- Crew Chief for Marshville Sewer in Marshville, North Carolina.
- Crew Chief for Sewer Route Survey for Norwood in Norwood, North Carolina.
- Crew Chief for Lenoir Water and Sewer Extension in Lenoir, North Carolina.
- Crew Chief for Kings Mountain Route 75 Waterline Extension in Kings Mountain, North Carolina.
- Project Manager for route survey/seismic survey for SM-80 gas pipeline in Cross Lanes, West Virginia

Office, Business, Industrial:

- Walmart – Construction layout for parking, roadways, curb and gutter, and utilities for new store in Barboursville, West Virginia.
- River Ridge – Construction layout for new church building, parking and utilities in Charleston, West Virginia.
- National Lumber Plant – Chief/Survey Supervisor for boundary and topographic survey, construction stakeout for plant site in Roane County, West Virginia.
- Buckskin Council Boy Scout Camp, Boys Scouts of America – Survey Supervisor for topographic survey and construction stakeout for new water and sewer system in Pocahontas County, West Virginia.
- Hampton-Clarke, Philips Lighting Company – Crew Chief/Survey Supervisor for boundary and topographic survey, construction stakeout for cullet pile of hazardous waste site in Fairmont, West Virginia.
- BIDCO – Boundary and topographic survey for several parcels in the development, also stakeout of spec building and parking lots in Kanawha County, West Virginia.
- Crew Chief for Bojangles on Sam Furr Road in Charlotte, North Carolina.
- Crew Chief/Project Manager for Lowe's of Pineville, North Carolina.
- Crew Chief/Project Manager for Firestone Fibers and Textiles in Kings Mountain, North Carolina.
- Crew Chief/Project Manager for Rural Hills in Mecklenburg County, North Carolina.

- Crew Chief/Project Manager for Huntersville Business Park in Huntersville, North Carolina.
- Crew Chief for TransWest Office Building in Charlotte, North Carolina.
- Crew Chief/Project Manager for Chatham Properties in Charlotte, North Carolina.
- Crew Chief/Project Manager for WTVI Transmitter Tower in Charlotte, North Carolina.
- Crew Chief/Project Manager for Greenbrier Business Park in Charlotte, North Carolina.
- Crew Chief/Project Manager for Dickerson Carolina, Inc. in Charlotte, North Carolina.
- Crew Chief for Oakboro Industrial Park in Oakboro, North Carolina.
- Crew Chief for Baxter Medical Warehouse in Charlotte, North Carolina.
- Crew Chief/Project Manager in TechPark Business Center in Rock Hill, South Carolina.
- Crew Chief for Coffey Creek II and III in Charlotte, North Carolina.
- Crew Chief for Red Fez Club in Lake Wylie, South Carolina.
- Crew Chief for Hickory Grove Business Park in Charlotte, North Carolina.
- Crew Chief for Minit Lube in Charlotte, North Carolina.
- Crew Chief for Crescent Gateway in Belmont, North Carolina.
- Crew Chief for Roto Rooter in Charlotte, North Carolina.

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.

Boundary & ALTA/NSPS Surveys:

- E.I. DuPont – Project Manager of all property owned by E.I. DuPont in the state of West Virginia totaling over 3, 927 acres.
- 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 developments in Kanawha, Mason, Randolph, and Ritchie Counties, West Virginia.

- Charleston Housing Authority – Crew Chief/Project Manager for ALTA survey for 4 housing projects located in City of Charleston in Kanawha County, West Virginia.
- Emmanuel Baptist Church – Crew Chief/Project Manager for church in Charleston, West Virginia.
- Coldwater Creek – Crew Chief/Project Manager for ALTA survey of 38-acre distribution site in Mineral Wells, Wood County, West Virginia.
- Big Sandy Peaker Plant, Constellation Energy – Crew Chief/Project Manager ALTA survey of 42-acre plant site and 1 mile of transmission lines in Cabell County, West Virginia.

Expert Witness/Case Preparation/Accident Surveys:

- Flowe Construction v. Woolpett Consultants – Rutherford County Airport in Rutherford, North Carolina.
- Sizemore v. Carte – Boundary dispute in Clay County, West Virginia.
- Boundary dispute for case preparation over placement of gas well in Putnam County, West Virginia.
- Columbia Gas – Case preparation over a gas release and spill from a gas storage well in Sissonville, West Virginia.
- Boundary location settlement to determine location of property line due to a tree falling resulting in death in Nicholas County, West Virginia.
- Three-dimensional survey of a pallet crusher and survey a piece of machinery and surrounding structures in a case resulting in a loss of legs in Parkersburg, Wood County, West Virginia.
- Conducted boundary survey and mapping for court documents over a disputed right-of-way through a piece of property to an adjoining tract in Pinch, West Virginia.
- Three-dimensional survey of Huntington Bank parking garage to help determine cause of building collapse resulting in multiple deaths.

Hazardous Waste/Disposal Facilities:

- Winfield ACF Site, ACF/Corps of Engineers – Work included boundary, topographic, construction layout and sample point layout of 15 acres along the Kanawha River. This project had over 12,000 sample

points laid out on a 3' grid in Winfield, West Virginia.

- Fike/Artel Superfund Site, DeMaximus – Surveying Supervisor for work that included boundary, topographic and sample layout for the cleanup and monitoring of the Fike/Artel Site and surrounding properties in Nitro, West Virginia.
- Phillips Lighting, Fairmont Site, Hampton Clark – Surveying Supervisor for work that included boundary, topographic, structure location and sample layout of the Phillips Lighting glass collect pile and surrounding areas along the Monongahela River in Fairmont, West Virginia.
- Poor Charlie and Company, Riverside Site; Poor Charlie, Sattes Site; Poor Charlie, Cramer Metals Site – Surveying Supervisor for work that included boundary, topographic, location and boring stakeout of various VERA sites and adjoining properties in Glasgow, Nitro and Parkersburg, West Virginia.
- Elkem Metals Disposal Facility, Elkem Metals – Surveying Supervisor for work that included control network, boundary, topographic surveys, and yearly volume reports in Alloy, West Virginia.
- Solutia – Surveying Supervisor for work that included boundary, topographic and location Surveys for various projects, disposal facility caps, charcoal filtering systems, and monitoring well control network throughout the site and adjoining properties in Nitro, West Virginia.
- Nicholas County Landfill – Surveying Supervisor for work included control network, boundary and topographic surveys for expansion of cells and yearly volume reports in Summersville, West Virginia.
- Pocahontas County Landfill – Surveying Supervisor for work that included control network, boundary and topographic surveys for expansion cells and yearly volume reports in Pocahontas County Landfill in Pocahontas County, West Virginia.
- Fleming Landfill, WVDEP – Surveyor Supervisor for work that included boundary and topographic surveys, along with control network and baseline stakeout for landfill closure in Sissonville, West Virginia.
- Cunard Landfill, WVDEP – Survey Supervisor for work that included topographic and construction layout for landfill closure in Fayetteville, West Virginia.
- City of Charleston Landfill – Construction layout for new waste cells in Charleston, West Virginia.
- Putnam County Landfill – Construction layout for new waste cells in Hurricane, West Virginia.
- Berkeley County Landfill – Crew Chief/Project Manager for construction layout for closure.
- Hampshire County Landfill – Crew Chief/Project Manager for construction layout for closure.
- Mingo County Landfill, J & B Contracting – Survey Supervisor for work that included topographic and construction layout for landfill closure in Mingo County, West Virginia.
- Mercer County Landfill, Jimmy Dunn – Survey Supervisor for work that included topographic and construction layout for landfill closure in Mercer County, West Virginia.

Parks and Recreation:

- Crew Chief/Project Manager for Freedom Park in Charlotte, North Carolina.
- Crew Chief/Project Manager for Mallard Creek Park in Charlotte, North Carolina.
- Crew Chief for York Park in York, South Carolina.
- Crew Chief for Hargett Park in Rock Hill, South Carolina.
- Crew Chief for York Road Renaissance Park in Charlotte, North Carolina.
- Crew Chief for Lockrain Subdivision and Golf Course in Orange Park, Florida.
- Crew Chief for Amelia Island Golf Course in Amelia Island, Florida.

Aviation:

- Yeager Airport – Stake out P.A.P.I. lights for Runway 15 in Charleston, West Virginia.
- Summersville Airport – Crew Chief/Project Manager for topographic and tree location for glide path in Summersville, West Virginia.
- Rutherford County Airport – Rutherford, North Carolina.
- Seymour Johnson Air Force Base – Goldsboro, North Carolina.
- Statesville Regional Airport – Statesville, North Carolina.
- Asheville Regional Airport – Asheville, North Carolina.
- Anderson County Airport – Anderson County, South Carolina.

Motel:

- Crew Chief for Knights Inn Motels in Statesville, Asheville, Gastonia, and Charlotte, North Carolina.

- Crew Chief for Fairfield Inn Motel in Charlotte, North Carolina.
- Coal Mines:

Kanawha Eagle Mine – Crew Chief/Survey Supervisor for work that included topographic and construction staking of refuse impoundments, drainage runoff ponds, and stake clearing limits of new mine face in Kanawha County, West Virginia.

Housing and Subdivision:

Yorktowne Subdivision – Crew Chief/Survey Supervisor for work that included boundary survey of exterior tract, construction stakeout of roads and utilities, stake boundaries of lots in Kanawha County, West Virginia.

The Pointe at Northgate – Project Manager for topographic and construction layout for subdivision.

Crew Chief/Project Manager for Woodside Falls Subdivision in Pineville, North Carolina.

Stonegate Subdivision – Crew Chief/Survey Supervisor for work that included boundary survey of exterior tract, construction stakeout of roads and utilities, stake boundaries of lots in Putnam County, West Virginia.

Crew Chief/Project Manager for Amberwood Subdivision in Charlotte, North Carolina.

Crew Chief for Thompson Plantation in Charlotte, North Carolina.

Crew Chief for Wells Crossing Apartments in Orange Park, Florida.

Crew Chief for Park Lake Apartments in Charlotte, North Carolina.

Crew Chief for Lakes of Mayport Apartments in Mayport, Florida.

Crew Chief for Cross Creek Apartments in Charlotte, North Carolina.

Military:

Crew Chief for Seymour Johnson Air Force Base, United States Air Force in Goldsboro, North Carolina.

St. George Harbor, U.S. Corps of Engineers –Contractor Quality Control Representative in St. George Island, Alaska.

Crew Chief for Camp Butner, United States Army in Durham, North Carolina.

Streetscapes:

Crew Chief for Idlewild Road in Charlotte, North Carolina.

Crew Chief/Project Manager for Florida Street in Charleston, West Virginia.

Crew Chief for Streetscape Mapping Project in Charlotte, North Carolina.

Crew Chief for Rock Hill Gateway in Rock Hill, South Carolina.

Crew Chief for boundary/topographic plans for Crescent Gateway Project in Belmont, North Carolina.

Colleges/Universities/Schools:

University of Charleston – Crew Chief/Survey Supervisor for work that included boundary survey of several parcels of land for student housing and parking lot in Charleston, West Virginia.

Marshall University – Survey Supervisor for work that included boundary and location survey of research complex in Charleston, West Virginia.

Marshall University – Crew Chief/Survey Supervisor for work that included courthouse research, boundary and topographic survey of several city blocks for student housing and parking buildings in Huntington, West Virginia.

University of Charleston – Crew Chief/Project Manager for stakeout of new pharmacy school building in Charleston, West Virginia.

Blackwell Field – Crew Chief/Project Manager for stakeout of sports complex for University of Charleston in Charleston, West Virginia.

Ivydale Elementary School – Crew Chief/Project Manager for boundary survey for disputed property line in Clay, West Virginia.

Big Otter Elementary School – Crew Chief/Project Manager for boundary survey for new school in Clay County, West Virginia.

Landfills/Abandoned Mine Lands:

WVDEP AML – Crew Chief/Project Manager for control/topographic survey for Sundial Project.

Jackson County Landfill – Crew Chief/Project Manager for work that included GPS control survey, boundary and topographic survey, construction stakeout for landfill closure in Jackson County, West Virginia.

Nicholas County Landfill – Survey Supervisor for work that included boundary and topographic surveys for biannually reports in Nicholas County Landfill in Nicholas County, West Virginia.

Pocahontas County Landfill – Survey Supervisor for work that included boundary and topographic surveys for biannual reports and construction stakeout in Pocahontas County, West Virginia.

Mercer County Landfill – Crew Chief/Survey Supervisor for work that included GPS control survey, boundary and topographic survey, construction stakeout for landfill closure in Mercer County, West Virginia.

Corporate Information

Firm History

Founded in 1981, McKinley Architecture and Engineering is a multi-discipline **full service Architectural & Engineering firm**, offering comprehensive **professional services in Architecture, Engineering, Interior Design, Energy Efficient and Sustainable (LEED) Design, Commissioning, Construction Administration, Learning Environment and Educational Facility Planning, and Historic Preservation**. We have a broad range of skill and experience for projects involving **governmental**, commercial, industrial, PK-12 schools, higher educational, sports & recreation, medical, private sector, and more. Over the years, our firm won multiple **State and National awards and recognitions** for our designs.



Firm Information

Ernest Dellatorre
President

Tim Mizer, PE, RA, QCxP
Director of Engineering

Patrick J. Rymer, AIA, ALEP
Director of Architectural Services

Date of Incorporation

July 1, 1981
Wheeling, West Virginia

Number of Professionals

Total Size	24
Architects	5
Engineers	2
Arch./Eng. Designers	6
Construction Admins.	2
Interior Designer	1
LEED AP BD+C	2
ALEP (CEFP) / REFP	2
Commissioning Provider	1
Historic Preservationist	1

Locations

32 Twentieth Street
Suite 100
Wheeling, WV 26003
P: 304-233-0140
F: 304-233-4613

129 Summers Street
Suite 201
Charleston, WV 25301
P: 304-340-4267

416 Longridge Drive
Pittsburgh, PA 15243
P: 724-223-8250

Credentials

McKinley Architecture and Engineering is a member of the following **organizations**:

A4LE (formerly CEFP), ACI International, AIA, ASCE, ASHRAE, ASPE, AWI, BOCA, NCARB, NFPA, WVEDC, and more

Follow Us

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www.Linkedin.com/company/McKinleyDelivers

Instagram: @McKinleyDelivers



McKINLEY
ARCHITECTURE + ENGINEERING

Sustainable “Green” Design

Buildings designed today will need to meet the demands of the future; McKinley Architecture and Engineering identifies the changes necessary to meet these demands. This approach helps to retain the buildings’ long-term profitability and value, which achieves the buildings’ **sustainability**.

McKinley approaches ecological design from a business perspective, offering **proactive** solutions to complex problems such as indoor air quality, energy efficiency, resource depletion, and water quality. With commercial and institutional project experience, the McKinley Team can work alongside local designers to provide sustainable design and construction guidance. We also offer full architectural design services and guided design workshops on sustainable design issues.

Our Philosophy is to provide our clients with experienced leadership as well as state-of-the-art and **innovative** design expertise to accomplish the goals of your projects. Function, economics and versatility, in addition to the development of **strong aesthetic appeal**, are crucial elements in our design process. We also believe that enhancement of the physical environment in which each individual lives and works should add significantly to the enjoyment of life. Our firm has dedicated our professional skills to attain these goals. **For a few recent sustainable awards**, we were honored to have **won 5 Placemakers Awards from West Virginia GreenWorks** at the Building Conference in Morgantown. In addition, **Cameron Middle/High School won the Black Bear Award for the Highest Achievement for the West Virginia Sustainable Schools program**, and was selected as a **2014 U.S. Department of Education Green Ribbon School!**

Moreover, Hilltop Elementary School is one of our many projects that we designed using **energy efficient** and **sustainable design** approaches. It was not until **after** construction had commenced that the Owner decided to submit for LEED Certification. This required a great deal of coordination with the architects, engineers, subcontractors and suppliers. Since we incorporated **good sustainable design practices** from the beginning, this allowed for an easy transition, and for the project to be successfully completed in July 2009. **This is the first LEED Certified school in the state of West Virginia.** Hilltop won a **Gold Medal Green Building Award by Building of America**. Hilltop also won the West Virginia Department of Environmental Protection’s **Clean Energy Environmental Award**. Hilltop received the **Black Bear Award for the Highest Achievement for the West Virginia Department of Education’s Green Ribbon Schools program**. In addition, Hilltop won a **Placemaker Award for Leadership of/for Place from the West Virginia GreenWorks**. Moreover, in April 2012, Hilltop was one of 78 schools (which span 29 states and D.C.) to be awarded the **first-ever U.S. Department of Education Green Ribbon Schools!**



McKinley and Associates has been honored to have won some very notable awards and to have received some very prestigious nominations over the years. We recently won a **West Virginia Chapter of the American Institute of Architects Merit Award** for our newly renovated Charleston Office; a project led by Thom Worledge.



View of our award-winning Charleston Office renovation showing our centrally located conference room “Lantern.” This glows all day long through the translucent walls, which are illuminated with natural daylight from a skylight above.



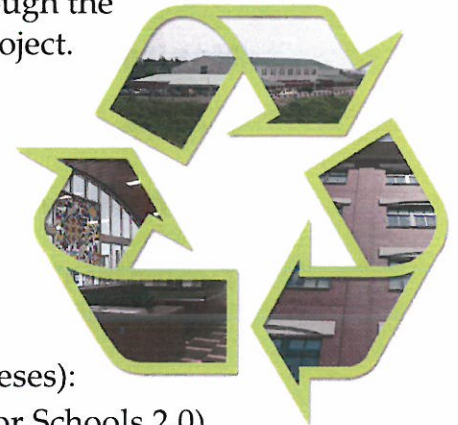
Leadership in Energy and Environmental Design





LEED® (Leadership in Energy and Environmental Design) Green Building Rating System™ developed by the U.S. Green Building Council (USGBC) is the nationally accepted standard for the design, construction, and operation of high performance green buildings (www.usgbc.org). In January 2001, our firm was the **first organization in West Virginia to join the USGBC**. No other WV firm joined until nearly 2 years later! We have **LEED Accredited Professionals** on staff, along with our skilled architectural/engineering team, who will efficiently and cost effectively achieve certification under this standard or we can guide you through the process in order to develop sustainability goals specific to your project.

We have **LEED® Accredited Professionals specializing in Building Design & Construction** on staff:

- Christina Schessler, AIA, LEED AP BD+C
- Thomas R. Worlledge, AIA, LEED AP BD+C, REFP



Our **LEED Certified Projects** are (LEED Rating System in parentheses):

-  **Hilltop Elementary School** in Sherrard, WV (LEED for Schools 2.0)
 - **The First LEED Certified School in the State of West Virginia!**
-  **Building 55: West Virginia State Office Complex** in Logan, WV (LEED NC 2.2)

Our **LEED Registered Projects** are (LEED Rating System in parentheses):

- Bellann in Oakhill, WV (LEED EB O&M)
- Cameron Middle/High School in Cameron, WV (LEED for Schools 2.0)
- SMART Office in Williamson, WV (LEED CI)

The LEED AP Specialty Logos signify advanced knowledge in green building practices and specialization in a particular field.



The LEED AP BD+C designation that both Thom and Christina have achieved represents specialization in commercial design and construction.



Thomas R. Worlledge, AIA, LEED AP BD+C, REFP has been a member of the USGBC since 2001; he was the first LEED Accredited Professional in the state of West Virginia! As a professional trainer for the Sustainable Building Industries Council, he teaches other design professionals in the art of High Performance School design. He is also a Founder & Chairman of the Board for the US Green Building Council's West Virginia Chapter.



Christina Schessler, AIA, LEED AP BD+C has been a member of the USGBC since 2009. In 2012 she received her Masters in Historic Preservation, so not only can she incorporate LEED "Green" aspects into new buildings; she can even incorporate energy efficient design into renovation/preservation projects. Twenty percent of a building's energy consumption is embodied in the existing physical structure itself!

The 'USGBC Member Logo' is a trademark owned by the U.S. Green Building Council and is used by permission.

Construction Administration & On-Site Representation

Construction Administrator Involved from the Beginning of the Design Phase

Observe the Construction Progress

Liaison between the Owner, Contractor, and Architects/Engineers

Responsible for All Construction Progress Meetings and Minutes

Monitor the Construction Schedule

Ensure that the Contractor is Following the Construction Documents

Verify Pay Application and Change Orders

**Typically On-Site Once Every Two Weeks
(Provide Additional On-Site Representation if Requested)**



Our **Construction Administrators** have an extra responsibility than what most firms' Construction Administrators have; our CAs are a part of the design process from **Day 1** (they are not thrown into the project only when construction starts; they are here from the beginning), so they know the ins-and-outs of the project. Our CAs have an important role as being the **liaison between the Owner, Contractor, and Architect**. The primary objective of the Construction Administration services is to ensure completion of work the way the client wants it - **as scheduled and as budgeted**. Our CAs evaluate the quality of the work to verify that it meets the level required by clients; in addition, they monitor the contractor's progress to ensure that they are following the Construction Documents. They observe the construction progress, are responsible for all construction meetings and minutes, and they verify pay application and change orders. The Construction Administrator is typically on-site once every two weeks, but we can provide additional on-site representation if requested.

References

United States Postal Service

(Multiple Projects including similar renovations)

Mr. Bruce Adams
P.O. Box 20867
22681 Woodward Avenue
Ferndale, MI 48220-0867
248 / 677-9660

Orrick's Global Operations Center

(includes similar scope)

Mr. Will Turani
Orrick, Herrington & Sutcliffe LLP
2121 Main Street
Wheeling, WV 26003
304 / 231-2629

Wetzel County Schools

(Multiple Projects including similar renovations)

Mr. Jeff Lancaster
Treasurer/CFO
333 Foundry Street
New Martinsville, WV 26155
304 / 455-2441 x129

Tyler County Schools

(Multiple Projects including similar renovations)

Ms. Amanda Kimble
Facilities Director
P.O. Box 25
Middlebourne, WV 26149
304 / 758-2145

WV Department of Health & Human Resources' new Ohio County office

(includes similar scope)

Mr. David J. Hildreth
WV Department of Administration
1409 Greenbrier Street
Charleston, WV 25311
304 / 558-1295

2 Camp Dawson projects +

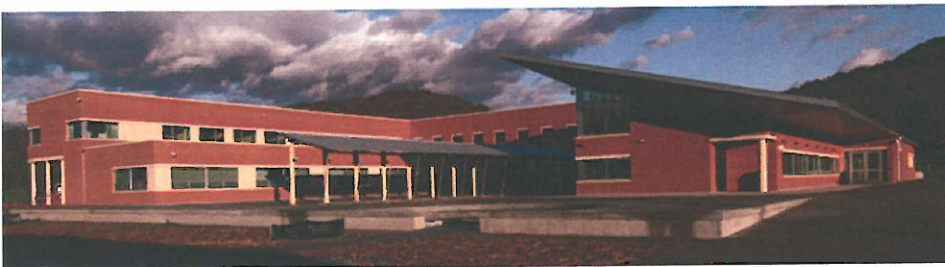
West Virginia Army National Guard

Kingwood, West Virginia

McKinley Architecture and Engineering has completed multiple projects for the West Virginia Army National Guard, including **full A/E design services** and **construction administration**. We completed SPCC Plans and Amendments across the State. We completed HVAC renovation and electrical upgrades project at the Williamstown AASF #1.

Moreover, we have also teamed with Assemblage Architects to create these 2 buildings at **Camp Dawson in Kingwood, Preston County, WV**; our involvement in these 2 projects includes **HVAC/mechanical, electrical, plumbing, and fire protection engineering**, as well as **construction administration services**:

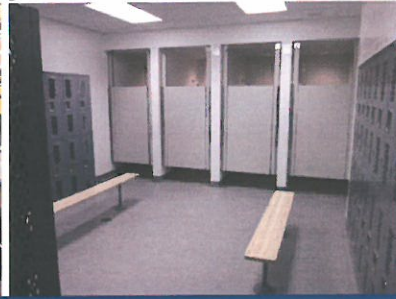
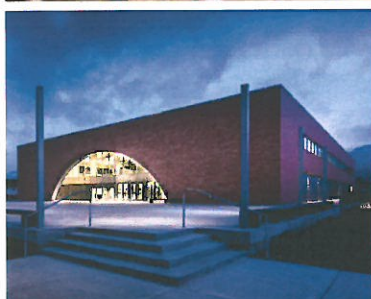
The **new Mountaineer ChalleNGe Academy** (*capital "NG" for National Guard*) is the first nationwide educational program for at-risk children in a quasi-military setting. This project won a 2011 WV AIA Merit Award. The building program includes staff offices, counselors offices, support staff areas, classrooms, an exercise area/gymnasium, locker and shower rooms,



medical assistance space, restrooms, and a full service kitchen with dining facility; these spaces will accommodate the 160 young adults/student residents living at Camp Dawson as part of the ChalleNGe Academy. The first floor of the wing contains multiple classrooms, while the second floor contains multiple offices, conference, recruiting, and server rooms. There are also offices on the first floor. The gymnasium accommodates physical activity, weight training, and serves as the central hub of the complex. Drill exercises and formations, as well as graduation ceremonies are held here. The U-shaped building creates a large, central courtyard which includes a long shed-roof covered pavilion, along with a circular, concrete amphitheater. This courtyard is a multi-purpose outdoor events area for student functions, training activities, drills and formations, educational purposes, receptions, and more.



The mission of the **Multi-Purpose Building** is a **new** permanent multi-use masonry steel-framed structure with supporting facilities for military units of the WVARNG. The facility serves as the primary physical training and event space for the Camp Dawson residents. This project won a 2014 West Virginia AIA Honor Award. The facility houses a large open space (gymnasium), a physical fitness area, locker rooms, shower facilities, offices, and more. The facility and grounds include parking, attached and detached storage, landscaping, security lighting and fencing, and a unique entry. This project was designed with energy recovery systems, as well as daylight harvesting in the gym. The gymnasium was based on occupancy of 200 exercising, or 3,500 at rest for events/assembly. It includes a tailor-made public address system with wireless microphone inputs for the events. We designed the gymnasium for three lighting scenarios: a) Stage use in Gym, b) Game lighting, c) General everyday lighting.



McKINLEY
ARCHITECTURE + ENGINEERING

Open-Ended Contract West Virginia State Police

Owner
West Virginia State Police

Construction Cost
These projects were completed under
3 multi-year open-ended agreements

Project Architects-Engineers
McKinley Architecture and Engineering

McKinley Architecture and Engineering has been honored to have been selected for multiple consecutive West Virginia State Police **open-ended contracts** for all architectural and engineering services throughout West Virginia. McKinley Architecture and Engineering have completed design services on **dozens of renovations** as well as **additions** on police detachments throughout the State, such as in Clarksburg, Franklin, Jackson County, Lewisburg, Moundsville, and Romney to name a few. Moreover, we have also completed **multiple new detachments** in Berkeley, Logan, Morgantown, Rainelle, and Wheeling, West Virginia to name a few. Some buildings have **E911 Centers which have a higher level of security**, such as in Doddridge, Franklin and Romney. We are proud to showcase continuous work for the West Virginia State Police throughout our region, and we are pleased to say that we have also surveyed, reviewed, projected, budgeted, and documented **72 police facilities** throughout the entire State.

By virtue of our experience having worked on dozens of State Police Detachments, we understand the need for security throughout the entire building, especially where the public enters the detachment. Typically we use block for force and bullet protection; but in an existing building where we have to use gypsum board partitions we would use fiberglass ballistic panels and expanded metal mesh behind the gypsum board, and on the inside of the wall we would use plywood under for extra blast protection. Providing security below the raised access floor can be addressed by using expanded metal mesh; allowing the wiring to pass through, but limiting access to the space above. We have extensive experience designing secure interior and exterior doors and associated access control systems on dozens of WVSP Detachments.

Architectural and Engineering design for **new addition and renovations** to the detachment in **Pendleton (Franklin)**. The **3,170 SF addition** was for a **911 Center (E911)** that included 2 offices, a communications room, a transmitter room, a kitchen and a vestibule. The **3,840 SF of renovations** included **providing security for the secretary, replacing door hardware to more secure hardware**, a bunkroom, ADA upgrades, **exit and emergency lights**, and an emergency generator to name a few.



A new 3,465 SF **Mason County Detachment** in Point Pleasant includes **secured/separate access to the main WVSP areas** which has a squad room with gun storage, Sergeant's office, evidence room, additional/separate evidence lockers, interview room, kitchen, day room, restrooms, file room, garage, and secretary's room with view of commons area. The commons area includes a **separate access vestibule**, lobby, restroom, conference room, mechanical room, and an additional storage area.



The new 7,375 SF **Romney Detachment** includes a **1,000 square foot E-911 Communications Center with a separate secured entrance, raised access floors, an uninterrupted power supply (UPS)**, and an emergency generator. Also included were multiple offices, sleeping quarters, kitchen/lounge area, squad room, evidence storage room, interview rooms, B.C.I. space, M.V.I. space, D.M.V. testing space, and other support spaces.



WV Department of Health and Human Resources Office Building

Wheeling, West Virginia

Owner

WV Department of Administration:
Real Estate Division

Size

56,783 SF

Construction Cost

\$2 million

Project Architects-Engineers

McKinley Architecture and Engineering

Project Architect

Thomas R. Worlledge, AIA, LEED AP BD+C, REFP



BEFORE



and AFTER



We were asked by our client to **renovate** a former car showroom and service area into an office building (now called the Mary Margaret Laipple Professional Building). The first fit-out includes space for the West Virginia Department of Health & Human Resources' new Ohio County office. The building was concrete and designed for cars; not people. The first challenge was to remove a large ramp that connected two floors of the building and level the concrete floors. We worked with our client to fit the DHHR's program into the space and maximize the use of the space. We had to work around the existing structural walls and columns and provide fire escapes at the different floor levels of the floor structure.

The project was built in **three phases: the exterior was completed first (including new doors, windows, skin, etc.), next the interior (including secure doors), and then the parking lot** so the project could be fast tracked to meet the Owner's 2013 move-in requirements. The building was divided into three distinct spaces: **secure office space, Client space, and training areas. The Office space is secured from the client area by an access control system.** The training space was designed to be stand alone for use by other State staff training. The showroom windows were mostly in-filled because of the sensitive nature of the materials in the building, but windows high on the wall provide **natural daylight** in the space. We worked with the local and state code officials to bring the building into compliance with the current building and fire codes and provide access to all of the occupied areas of the building. We worked with the owner of the building to allow a **separate entrance for future tenants** of the upper two floors and to keep the renovation cost to a minimum while providing a state of the art facility for the DHHR's use.

Allied Plate & Glass was hired for the Phase I secure exterior doors and hardware (as well as windows). There are exterior doors at 3 locations, which are heavy-duty hollow-metal doors and frames. There is front glaze aluminum storefront framing for 3 entrances, 6 exterior fixed frame windows, and 4 sections of continuous fixed frame windows. This included 112 pieces of glass (both tempered and annealed) in the doors, frames, and windows. The entrances have door frames that are 2" x 4-1/2" thermally broken front glaze transom door frames with front glaze sidelites. The doors and sidelite glazing are 1" overall thickness insulated *tempered* units, where the transom glazing is 1" overall thickness insulated *annealed* units. The entrance frame size at 101B is 100" x 129", at 179B is 136" x 129", and at 125A is 138" x 129". All doors are 72" x 84" pairs with continuous hinges and rim panic devices, wide stile doors, 1-3/4" thick with 10" bottom rails & 6" cross-rails. There are two sets of custom hardware, which includes head receptors and aluminum sill flashing with end dams.

Deluxe Doors was hired for the Phase II interior doors and hardware (as well as windows), including secure doors. This included 80 interior door openings of knocked down primed steel frames, red oak clear pre finished wood doors and hardware and glazing. Furthermore, there are closers and reinforced frame heads to 17 doors, passage lever sets to 2 doors, and electrified trim to 2 doors. The video conference room includes a hollow metal, knocked down, primed frame with one way mirror. The reception window (shown to the right) includes aluminum tracking with security glass. The door contact and reader interface was installed by a security contractor.

West Virginia University

University Police Building

Morgantown, West Virginia

Owner

West Virginia University

Size

11,768 SF

Construction Cost

\$450,000

Project Architects-Engineers

McKinley Architecture
and Engineering

Project Architect

Thomas R. Worledge,
AIA, LEED AP BD+C, REFP

McKinley Architecture and Engineering assisted West Virginia University in renovating a new space for the University Police Department. **The design of this three-story building included security walls, force protection, and ballistic materials that were built into the existing gypsum board walls to provide security for the dispatch/emergency communication center.** The waiting area required bullet/explosion proof drywall and glass. Also, a double door was added walking into the waiting area. Only exit/entrance doors will be on card swipe to allow entry into the building; all other doors are lock set with key. The dispatch room has card swipe access. There is an overnight evidence room off the existing double doors; this room has electronic lock and a different card swipe into the Secure Evidence. The next room is Fire Arms and storage; this room has card swipe and floor to deck above for security reasons, and the storage room also has a standard lock set for door. The front doors have card swipe access to the upper floors. The communications center monitors the CCTV locations around the campus, along with the security phone locations that are provided for campus safety. **The dispatch center serves as the central hub of communications for all WVU campus security issues and acts as the link to the state police and other emergency services.** The building houses the Campus Police, emergency dispatch center, secure evidence holding, interrogation rooms, and the police K-9 unit. Construction was completed in 2012.

The West Virginia Police Department was created in 1961 by an act of the legislature. The department is now challenged with providing services to a campus community of more than 35,000 on a daily basis and providing services to major events that attract more than 800,000 guests per year. The West Virginia University Police Department is a department of 53 sworn officers who attended the WV Basic Law Enforcement Academy in Charleston for a minimum of 800 hours of instruction in basic law enforcement and certification. The officers are then required to attend in-service training as required by the WV Law Enforcement Training Committee to maintain their certification. In addition to this training, they have a Field Training Program that consists of 16 weeks of departmental training before being able to work alone as an officer. The department has 10 civilian employees and of this number 7 are assigned to the Communication Section. These communication officers must attend The Association of Public-Safety Communications Officials training course to obtain certification. The training consists of 54 hours for certification with no annual recertification requirement, but the department is developing a training standard requirement. In addition, communications officers must attend 16 hours of training on the National Crime Information Center (NCIC) system with a recertification requirement of every 24 months.

BEFORE

and AFTER



BEFORE and AFTER

McKINLEY

ARCHITECTURE + ENGINEERING

Bennett Square

Wheeling, West Virginia

Owner

McKinley Properties, LLC

Size

22,000 SF

Construction Cost

\$7.5 million

Project Architects-Engineers

McKinley Architecture and Engineering

Project Architect

Christina Schessler,
AIA, LEED AP BD+C

Contractor

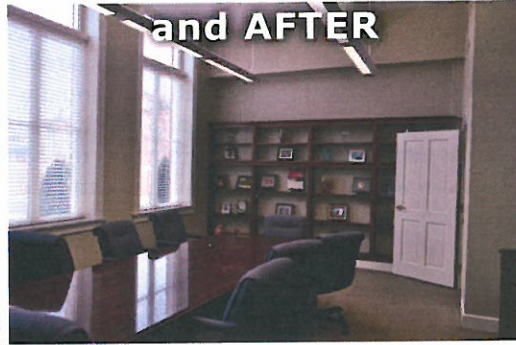
Walters Construction



BEFORE



Bennett Square is a historic **3-story, 22,000 SF renovation project** of the old Ohio County Public Library Building; the building is located in the Centre Market Square Historic District in the National Register of Historic Places; therefore, a successful review submission to the Secretary of the Interior was necessary, as well as SHPO reviews. **The finished \$7.5 million project houses "Class A" professional, technological, and medical office space in beautifully restored surroundings.** The project was completed in multiple phases beginning in 2007 and the final phase completed in 2013. Bennett Square has quickly become a cornerstone of the Wheeling business community with several key businesses occupying the space including: McKinley Carter Wealth Services headquarters, Dinsmore and Shohl LLC office, Dr. Don Chapman's Keep Smiling Family Dentistry office, and Omni Strategic Technologies office. **Phase I included "Class A" office fit-out for the first and second floors,** including preserved-in-place and salvaged architectural elements, as well as **major electrical and mechanical systems designs.** Renovations included both restored and new windows, doors, a new roof with multiple skylights, terra cotta restoration, exterior masonry pointing, paint, stairwell upgrades, and a new elevator. **Phase II completed the technology office fit-out on the second floor with major server rooms and data.** This phase also includes a major front facade restoration including pointing and replacement of the terra cotta banding, cornice, main entrance pediment and window trim, exterior brick masonry pointing and brick unit replacement to match existing. **Finally, Dr. Chapman's dental office is a fit-out on the third floor.** Planning included business offices, exam/operator rooms, custom casework, as well as **specialty HVAC, electrical and data, plumbing for gases, and much more.** We were able to highlight important architectural features while also providing a sensitive atmosphere for the patients.



McKINLEY
ARCHITECTURE + ENGINEERING

The Towers Building

Steubenville, Ohio

Owner

Jefferson County Commissioners

Size

76,300 SF

Construction Cost

\$5 million approx.

Project Architects-Engineers

McKinley Architecture and Engineering

Project Architect

Christina Schessler, AIA, LEED AP BD+C

We have worked with the Board of Commissioners of the County of Jefferson on several projects over the past few years, totalling over \$5 million. One project example is **multiple phases of renovations and upgrades to The Towers Building**. This is a 40+ year old, 8 story high-rise in downtown Steubenville. Unusually cold weather, age, and the culmination of years of insufficient maintenance had resulted in a series of situations resulting in frozen pipes, systems shutting down, and continuing emergency maintenance issues in the building. In February 2014, due to primarily system malfunctions and weather related damages at the building, an overall building condition assessment was determined to be necessary by the Owner, the Jefferson County Board of Commissioners. Therefore, McKinley Architecture and Engineering was hired to perform an emergency Preliminary Analysis of the Needs and **Energy Efficient Services** (including site visits, and write a report outlining our findings). Existing conditions related to the **architectural, mechanical and electrical** portions of the building were the primary focus of the study with the goal of **addressing concerns associated with occupancy comfort, continued tenant satisfaction and to determine an efficient repair and maintenance recommendations for the building**. Our recommendations address repair options, efficiency and energy saving solutions.

McKinley Architecture and Engineering's observations were conducted in a non-invasion fashion; essentially, this means that nothing was permanently removed or destroyed during the process. We completed a Building Condition Assessment and Energy Efficiency Analysis Report, and presented our findings. **After this, we have designed multiple phases of renovations for the building; a main roof replacement, mezzanine roof replacement and new skylight, building envelope repairs, a new boiler, new ADA handicapped ramp, sprinklering, and more.** For one example, the new boiler project involved the replacement of existing inefficient electric boilers with a new gas fired boiler. The new boiler is of a high energy efficiency, and has a much smaller footprint.

In addition, there was an adaptive reuse of a former bank on the first floor, into an office fit-out / renovations for the Jefferson County Board of Elections. The construction was performed with the building in operation.



Hancock County Schools

A.T. Allison Elementary School

Chester, West Virginia

Owner

Hancock County Schools

Size

56,000 SF

Construction Cost

\$5.3 million

Project Architects-Engineers

McKinley Architecture and Engineering

Project Architect

Christina Schessler, AIA, LEED AP BD+C

Contractor

Jarvis, Downing & Emch, Inc.

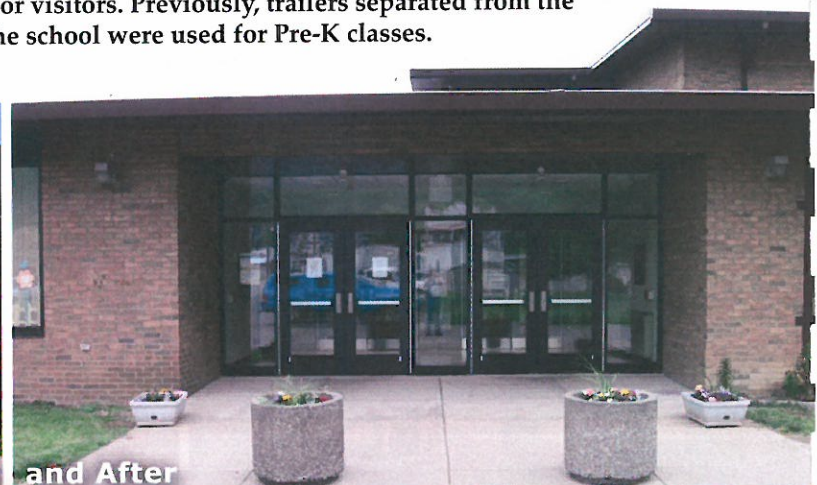
A Dedication Ceremony was held on August 25th, 2013 for the **addition/renovation project** to the Allen T. (A.T.) Allison Elementary School. The original building was built in 1963, and now consists of 440 students and 31 faculty members.

The building was brought up to today's standard of **Security**. This included a redesigned secure main entrance, new exterior doors and interior doors with insulated security glass, the addition of Man Traps at every public entry point, security cameras and video monitoring of all access points, door position monitoring, new security windows, and a building-wide access control system which controls and records all access to the building.

Other improvements to Allison include a brand new cafeteria, all new security doors and windows, 31 additional parking spaces, new heating, ventilating and air conditioning (HVAC) systems, restroom upgrades, landscaping, roofs, ceilings, elevators, data wiring and electrical upgrades and new sidewalks. A major school-wide life safety upgrade includes a new fire alarm, fully sprinklering the building, and the addition of egress corridors. Expanded parking will make drop-off and pick-up times safer for students by facilitating better traffic flow for private vehicles and school buses. There are also new playgrounds - one for pre-kindergarten pupils and one for kindergarten through fourth-grade pupils. The renovations/additions now gleam with the brightness of new lights, new ceilings, new flooring and new paint. This project also includes a 3-classroom pre-kindergarten addition with a **separate entrance**. This new entrance to the Pre-K addition features video cameras and a buzzer system for visitors. Previously, trailers separated from the rest of the school were used for Pre-K classes.



Before and After



McKINLEY
ARCHITECTURE + ENGINEERING

Orrick's Global Operations Center



Wheeling, West Virginia

Owner

Orrick, Herrington & Sutcliffe LLP

Size

88,000 SF approx.

Construction Cost

\$8 million

Project Architects-Engineers

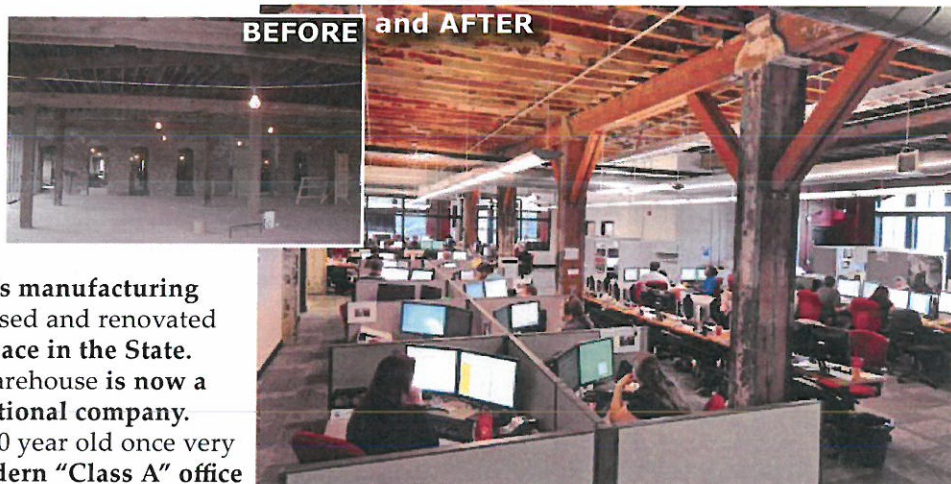
McKinley Architecture and Engineering

Project Architect

David B. McKinley, PE

Contractor

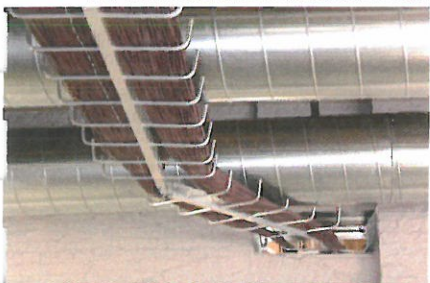
John Russell Construction



This former Wheeling Stamping Company's manufacturing plant/warehouse complex was adaptive reused and renovated to create some of the most creative office space in the State. This four-story, 88,000 SF former historic warehouse is now a high tech "back office" for a major multinational company. The greatest challenge was to convert the 100 year old once very industrial wood-framed building into a modern "Class A" office facility while retaining the historical heritage of the structure. This \$8 million project won a WV AIA Merit Award.

The Orrick Corporation performed a nationwide search to establish a 24/7 Global Operations Centers to become the first U.S. firm to consolidate back office functions at an off-site facility location. To start, we quickly worked with a project team consisting of the Ohio Valley Industrial and Business Development Corporation, Wheeling National Heritage Area Corporation, and more regional economic development partners to attract a new tenant. **The entire exterior shell was designed and constructed in less than 6 months to attract Orrick, and they chose Wheeling!** The exterior renovations included reconstructing 120 dilapidated steel windows and glazing, extensive brick repointing, and construction of a new public entrance and parking lot were just the beginning. The entire brick envelope was sealed and painted with a red brick paint following the repointing. **Insulating and replacing of the roof of the entire facility was also required.** Galvanized metal wall panels and downspouts now enhance the industrial style of the building. The siding is now juxtaposed by a new 4-story all glass entrance, which allows a glimpse of the atrium balconies and walkways inside.

The building was partially occupied while renovations continued. Architecture & engineering design was completed in-house and included a completely new mechanical/HVAC system, structural, civil, electrical and fire suppression systems. On the interior, the original facility was almost void of the vertical circulation needed of a modern day, team oriented work environment. **Now, an exposed steel atrium/elevator/stair core connects the four floors while introducing the industrial metals into the interior. Perforated columns, beams, and wire meshes allow daylight to filter in through usually solid steel construction.** Two exposed, glass backed passenger elevators with stainless steel interior finishes now traverse the four floors allowing passengers a dynamic view through the atrium and walkways out to Main Street. The stainless steel and galvanized finishes of the exposed spiral ductwork, **electrical conduits and cable trays**, sprinkler piping, and perforated metal light fixtures further enhance the industrial concept of the design.



McKINLEY
ARCHITECTURE + ENGINEERING

Building 55 West Virginia State Office Complex



Logan, West Virginia

Owner

State of West Virginia

Size

52,300 SF approx.

Project Architects-Engineers

McKinley Architecture and Engineering

Project Architect

Thomas Worlledge,
AIA, LEED AP BD+C, REFP

Contractor

Massaro Corporation

Commissioning Agent

Iams Consulting, LLC

City leaders were searching for a catalyst to stimulate community efforts to revitalize downtown Logan, West Virginia. This recently completed office building - dedicated on August 16, 2013 - has become that inspiration. The building is designed to reflect the history and culture of the area while incorporating current technology and safety elements, thus empowering the community leaders to create a vibrant connected urban core. This new 5-story building underscores its major role in the development and revitalization of downtown Logan by uniting office space for 127 employees for 6 State agencies under one roof, whom were once scattered throughout the city. The agencies include the Department of Health and Human Resources, Division of Rehabilitation Services, the Offices of the Insurance Commissioner, State Tax Department, WorkForce West Virginia, and Workforce Investment Board. The 53,200 SF building provides current technology, flexibility for future growth, and security features for existing and future tenants. In March 2014, this project became **LEED Certified**.

At the request of the Owner, the building was designed to be energy efficient "green" and meet sustainable design goals. To help achieve this, the HVAC system included the installation of 2 high efficiency condensing boilers, pumps with variable speed drive control, custom air handling units with chilled and hot water coils, variable air volume boxes with hot water heating coils, water cooled chiller with cooling tower, packaged rooftop energy recovery ventilator, and direct digital controls. In addition, a tight building envelope was created with closed cell foam insulation and thermal efficient windows. One of the unique features of the building is the daylight system which takes clues from older buildings that were designed to let daylight penetrate deep into the buildings by necessity. To enhance this effect we added "light louvers" which are devices that redirect daylight to the ceiling and diffuse natural light throughout the space. The open offices were placed around the exterior of the building and the enclosed offices along the interior wall so more of the tenants receive quality light. In addition,

interior windows allow the daylight to pass to the center offices. For another feature, the plaza uses recycled brick pavers from the demolished street; the patterns intersect at a quilt star, a symbol of West Virginia heritage that is carried into the building's main entry. It is interesting to point out a stained glass window feature in this entry, which won a 2013 AIA Craftsmanship Award. It is custom designed to reflect the culture and history of the area and use as much glass from West Virginia Manufacturers as possible.

There is a back-up/emergency generator for life safety systems and data server rooms, which powers emergency lighting and provides backup power to critical building systems. It is a 300kW, 480/277V, 3 Phase, 4W diesel generator with outdoor enclosure, concrete pad, and in-base fuel tank. The generator, Automatic Transfer Switches (ATS), controls, and annunciator meet the requirements of NFPA 110, "Standard for Emergency and Standby Power Systems".



McKINLEY
ARCHITECTURE + ENGINEERING



CORPORATE PROFILE

SERVICES:

Stafford Consultants is a full service engineering firm providing services in Civil, Structural, Highway, Bridge, Airport, Environmental, and Sanitary Engineering. We have been providing engineering services for water, sewer, and general civil projects for more than 31 years. Although our main emphasis is toward the municipal utility market, our firm is highly qualified and capable of completing varied civil and structural projects. The football stadiums at West Virginia and Marshall Universities, the Merriman Athletic Facilities building at Virginia Tech, the Chuck Mathena Center in Princeton, sidewalks for the City of Princeton, artificial turf for the Princeton Senior High School football field, structural design and sitework for the Oakvale Elementary School, and master planning of athletic facilities at Virginia Tech and Marshall University are just a few examples.

Stafford works closely with our clients to develop projects that meet their needs and can be constructed in a timely and cost effective manner. We assist the client from the beginning to end of their project with complete project services – preliminary study reports, preliminary design, final design, bidding, and complete construction administration services.

HISTORY:

Stafford Consultants Inc. was formed in 1985 from a core group of employees of Gates Engineering Company. After many successful years of operation, Gates Engineering Company was bought by a large design / build firm that later decided to divest the consulting engineering firm. Six employees have been with the firm since its inception.

Our office has been located in Princeton since opening for business. While the majority of our clients are located in the southern part of the state, Stafford has worked throughout West Virginia and also provides services in Virginia.

COMMITMENT:

Stafford is committed to providing quality engineering services to our clients, completed on time and at a fair price. Continuity of the project management team is paramount. The engineer preparing the proposal and presenting our qualifications at the interview is the same engineer that will be managing your project.

Our design teams utilize the latest versions of AutoCAD and AutoCAD Civil 3D software, in addition to various other structural, hydraulic, and hydrology packages. We utilize Ajera Complete to track all project time and expenses to make sure projects remain on schedule and within budget.

**1105 Mercer Street
Princeton, WV 24740
304-425-9555**



Water

Summersville Water Plant



- ▶ Over 30 storage tanks ranging from 30,000 to 750,000 gallons
- ▶ Surface water treatment plants from 50 to 2,000 gallons per minute
- ▶ Transmission and distribution systems ranging in costs from \$100,000 to over \$30,000,000
- ▶ Pumping stations designed with the needs and desires of the client in mind



Alderson Water Storage Tanks

Site Development



Glade Springs Village

Stafford Consultants provides engineering services to public and private clients such as:

- ▶ grading
- ▶ site utilities
- ▶ stormwater permitting
- ▶ structural analysis
- ▶ construction monitoring
- ▶ expert witness

Typical projects like Chapmanville, Williams-town, Parkersburg and Parkersburg South High Schools included:

- ▶ site grading
- ▶ utilities
- ▶ stormwater



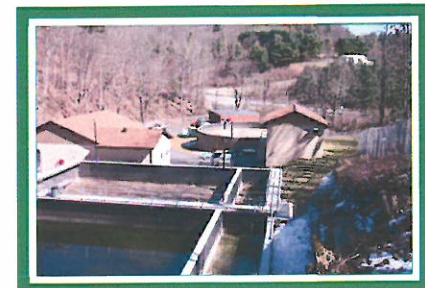
Parkersburg South High School

Wastewater

Princeton Wastewater Treatment Plant



Athens Wastewater Treatment Plant



Stafford projects include:

- ▶ treatment systems from 10,000 gallons per day to 5 million gallons per day
- ▶ conventional activated sludge, extended aeration, "orbal" oxidation ditch and sequencing batch reactor treatment systems
- ▶ conventional sewer systems and innovative systems such as pressure systems, vacuum systems, septic tank effluent systems and constructed wetlands

Some of Stafford's Satisfied Clients

Town of Alderson, West Virginia
 Alleghany County, Virginia
 Town of Ansted, West Virginia
 Town of Athens, West Virginia
 Big Bend P.S.D., Talcott, West Virginia
 Town of Blacksburg, Virginia
 City of Bluefield, West Virginia
 Bluefield Sanitary Board, Bluefield, Virginia
 Town of Bramwell, West Virginia
 Bramwell P.S.D., Bramwell, West Virginia
 Cooper Land Development, Inc., Beaver, WV
 City of Gary, West Virginia
 Greenbrier Valley Airport, Lewisburg, WV
 City of Hinton, West Virginia
 City of Lewisburg, West Virginia
 Logan County PSD, Logan, West Virginia
 Marshall University, Huntington, West Virginia
 McDowell County PSD, Coalwood, West Virginia
 Mercer County Commission, Princeton, WV
 New Haven PSD, Fayetteville, WV
 Nicholas County Commission, Summersville, WV
 Oakvale Road PSD, Princeton, West Virginia
 City of Princeton, West Virginia
 Princeton Sanitary Board, Princeton, West Virginia
 City of Welch, West Virginia
 WV Division of Highways, Charleston, WV
 WV Department of Environmental Protection, WV
 White Oak PSD, Scarbro, West Virginia
 Wilderness PSD, Mt. Nebo, West Virginia

Lyle Huntington, former Manager of Oakvale Road PSD said: "Oakvale Road has done service with Stafford Consultants since 1989. They have handled over \$50,000,000 worth of water and sewer projects. Stafford Consultants does exceptional work. You will not be disappointed if you should choose Stafford Consultants. I will continue to use them for future projects."

Transportation

Devil's Backbone Bridge



- ▶ 19 bridge design projects for WV Division of Highways
- ▶ 5 roadway design projects for WV Division of Highways
- ▶ 3 Engineering Achievement Awards for Bridge and Roadway Designs



Mullens Bridge

A Client-Caring and Serving Company

STAFFORD CONSULTANTS INCORPORATED



Whether your needs are for utilities, transportation, athletic facilities, structures or site development, you can trust the **EXPERIENCED** Engineers at **STAFFORD CONSULTANTS**.

Engineering, Design and Consulting

1105 Mercer Street
 Post Office Box 5849
 Princeton, West Virginia 24740
 Phone: (304) 425-9555
 Fax: (304) 425-9557
 E-Mail: staffordconsultants@frontiernet.net

Location: Lewisburg, Greenbrier County, West Virginia

Project: Design and preparation of contract plans for widening U.S. Route 219 North from I-64 to city limits to provide center turn lane. Total project length 1.4 miles. 1999 DoH Engineering Achievement Award Finalist.



Est. Cost: \$1,200,000 Design Completed 1999 Construction Completed 2000

Location: Hinton, Summers County, West Virginia

Project: Design and preparation of contract plans for widening State Route 107 (Bellepoint Road) to provide center turn lane. Total project length 1,300 feet.



Est. Cost: \$817,000 Design Completed 1999 Construction Completed 2000

Location: Hinton, Summers County, West Virginia

Project: Design and preparation of contract plans for improvements to both Route 20 - Route 3 intersections, changing them to channelized "T" types.



Est. Cost: \$215,000 Design Completed 1999 Construction Completed 2000

Location: Summersville, Nicholas County, West Virginia

Project: Design and preparation of contract plans for widening 1000 feet of Route 41 (Webster Road) to provide a turn lane onto Route 19/11 (West Webster Road). Work also included providing a turn lane from West Webster Road onto Webster Road.



Est. Cost: \$210,000 Design Completed 1999 Construction Completed 2000

Location: Craigsville, Nicholas County, West Virginia

Project: Design and preparation of contract plans for widening and intersection improvement at Route 20/Route 55 to provide a turn lanes. Total project length 1,150 feet.

Est. Cost: \$323,000 Design Completed 1999 Construction Completed 2000

STREETS & SIDEWALKS

PROJECT: Stafford Drive Sidewalk Improvement Project - Phase 3

Owner:
City of Princeton

Location:
Princeton, WV

Construction Cost:
\$142,000

Project Engineer:
Stafford Consultants

Description:
Installation of over 5,000 sq.ft. of new sidewalk along Stafford Drive. Full handicap access provided including newly required tactile warning devices at changes in sidewalk slope.



 **STAFFORD
CONSULTANTS
INCORPORATED**
Engineering Design and Consulting

STREETS & SIDEWALKS

PROJECT: Princeton Sidewalk Improvement Project - Phase 5

Owner:

City of Princeton

Location:

Princeton, WV

Construction Cost:

\$165,000

Project Architect-Engineers:

Stafford Consultants

Description:

Replacement of nearly 7,900 sq.ft. of sidewalk and 230 lf of curbing along Mercer Street. ADA warning surfaces installed as required. Random replacement utilized to extend funds.



STAFFORD CONSULTANTS INCORPORATED
GENERAL STRUCTURAL and SITE CIVIL DESIGN PROJECTS

Mountain Eagle Distributing Warehouse
Raleigh County Airport Industrial Park

Foundation design for pre-engineered building warehouse addition.

Ronceverte Elementary School Gym
Ronceverte, WV

Foundation design for pre-engineered building addition to serve as a gymnasium.

North Central Advanced Technology Center
Fairmont, WV

Foundation design, structural design, and retaining wall design for 36,300 sq.ft. three story structure. CMU walls with steel bar joists.

Mercer County Health Center
Green Valley, WV

Foundation design, structural design, and site civil design for 11,500 sq.ft. one story structure. CMU walls with steel bar joists.

Oakvale Elementary School
Oakvale, WV

Foundation design, structural design, and site civil design for 26,500 sq.ft. two story structure. CMU walls with steel bar joists.

Chuck Mathena Center for the Arts
Princeton, WV

Foundation design, partial structural design, and site civil design for 1,000 seat theater and associated service areas. CMU and pre-cast concrete walls with steel frame structure.

Merriman Athletic Facilities Building
Virginia Tech, Blacksburg, VA

Foundation design, structural design, and site civil design for 24,500 sq.ft. two story structure. CMU walls with steel frame structure.



Brooke County Middle School
Wellsburg, WV

Foundation design, structural design, and site civil design for 112,600 sq.ft. school, consisting of one and two story sections, gymnasium, multi-purpose gym, and auditorium. CMU walls with steel frame structure.



Weirton Elementary School
Weirton, WV

Site civil design for a 105,300 sq.ft. elementary school, including two parking lots and access road. Drainage design included an underground stormwater detention system.



Cameron High School
Cameron, WV

Site civil design for a 126,000 sq.ft. high school, including two parking lots and access road. The project also included a biological wastewater treatment plant.



Willamstown High School

Site civil design for renovations at the high school to provide parking and sidewalk improvements. Work also included a new tennis court and basketball court.

STAFFORD CONSULTANTS INCORPORATED
GENERAL STRUCTURAL and SITE CIVIL DESIGN PROJECTS



Oak Glen High School
New Cumberland, WV

Site civil design for renovations and improvements to the high school multi-use stadium and athletic complex. Work included new parking areas, new sidewalks, artificial surface on the football field, synthetic surface on the running track, drainage, and water system improvements.



Hilltop Elementary School
Sherrard, WV

Site civil design for new elementary school including parking, sidewalks, storm drainage, water, and sanitary sewer. Work also included a package biological wastewater treatment plant.



Parkersburg High School
Parkersburg, WV

Site civil design for renovations to the high school including parking improvements, sidewalks, and drainage design.



Projects with McKinley & Associates



**STAFFORD
CONSULTANTS
INCORPORATED**

Engineering Design and Consulting

SITE WORK

PROJECT: Hilltop Elementary School Site Work

Owner:

Marshall County Board of Education

Location:

Sherrard, West Virginia

Construction Cost:

\$400,000 (Site Work Only)

Project Architect-Engineers:

McKinley & Associates

Stafford Consultants

Description:

New elementary school with associated parking, sidewalks, and storm drainage. Also included a small playground area and paved basketball court.



 **STAFFORD
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INCORPORATED**
Engineering Design and Consulting

SITE WORK

PROJECT: New Weirton Elementary School Site Work

Owner:

Hancock County Board of Education

Location:

Weirton, West Virginia

Construction Cost:

\$1,825,000 (Site Work Only)

Project Architect-Engineers:

McKinley & Associates
Stafford Consultants

Description:

Complete site layout including parking, sanitary sewer, storm drainage, and water service. Storm drainage system included underground detention.



SITE WORK

PROJECT: Williamstown High School Site Work

Owner:

Wood County Board of Education

Location:

Williamstown, West Virginia

Construction Cost:

\$700,000 (Site Work Only)

Project Architect-Engineers:

McKinley & Associates
Stafford Consultants

Description:

Building addition with associated parking and sidewalk improvement. Also constructed new basketball court and tennis court facility.



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Engineering Design and Consulting

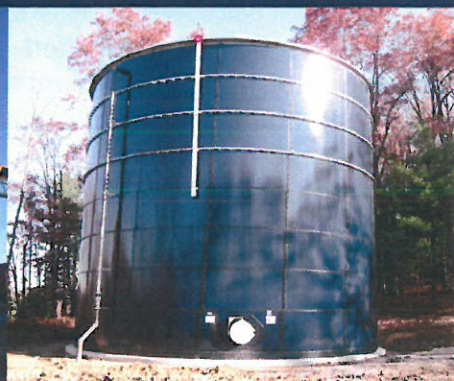


CORPORATE PROFILE

***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

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



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 81 experienced engineers, scientists, and support personnel with branch offices in Morgantown, West Virginia, and Winchester, Virginia. 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
- Asbestos Abatement
- Biological and Toxicological
- Civil Engineering and Site Design
- Coal Supply and Procurement
- CADD
- Construction Monitoring
- Environmental Emergency Response
- Environmental Site Assessment
- Geographic Information Systems
- Geotechnical Engineering
- Groundwater
- Hydrology and Hydraulics
- Landfills and Solid Waste
- Litigation Support
- Marcellus Shale Natural Gas
- Mining
- Mixing Zone Analysis
- Occupational Safety and Health
- Oil and Natural Gas
- Permitting
- Remedial
- Roadway Engineering
- Stream Restoration
- Storage Tanks
- Surveying and Mapping
- Water Quality Studies
- 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 two 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 Dana L. Burns, P.E., Vice President of Engineering, has more than 39 years experience with civil, geotechnical, mining, and environmental engineering projects.

FIRM HIGHLIGHTS:

Established in 1997

Staff of More Than 81

**Corporate Office in
Charleston, WV**

**Regional Offices in
Morgantown, WV
Winchester, VA**

**Primarily Serve Clients
East of the
Mississippi River**

**Carry a Full Line of
Insurance Coverage**

**Stringent Internal
Quality Control System**

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

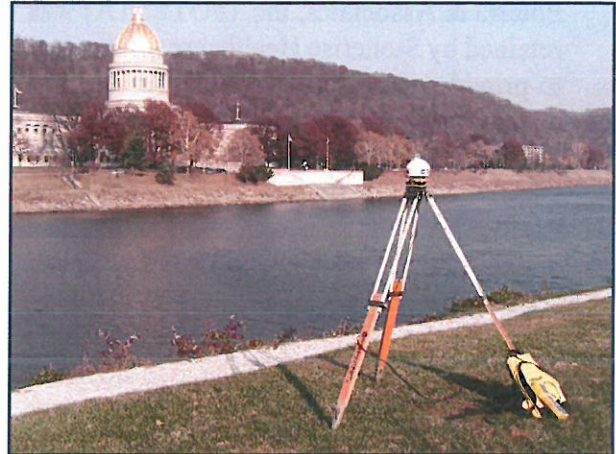
Our surveyors are experienced in many aspects of surveying such as topographic mapping, boundary surveys (rural/farms, city lots, and subdivisions), ALTA surveys, control surveys, flood certificate surveys, well location surveys, construction surveys for layout of work, record drawings, and quantity 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.



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GEOTECHNICAL AND CIVIL SITE DESIGN STONERISE HEALTHCARE EASTBROOK ADDITION

*Stonerise Healthcare
Charleston, West Virginia*

Potesta & Associates, Inc. (POTESTA) was retained by Stonerise Healthcare (Stonerise) to provide geotechnical evaluation and site development services for an approximate 38,000 ft² addition to the existing Eastbrook facility in Charleston, West Virginia. POTESTA first performed a subsurface exploration, which included seven subsurface test borings. POTESTA then prepared the civil site design plans while working closely with the Stonerise architect, as well as the City of Charleston. There were many aspects to this project in which creative solutions were used to work within tight parameters associated with this site. Some of the tasks associated with the geotechnical exploration and civil site design are listed below:



- Designing a box culvert to cover up 275 feet of stream with minimal cover allowed for a parking lot.
- The design of a 120-foot segmental retaining wall.
- Working with the City of Charleston and West Virginia Department of Environmental Protection (WVDEP) to acquire proper permits associated with the addition.
- Design of a new ambulance entrance under tight restrictions associated with planned location and proximity to Chesterfield Avenue.
- Evaluation of the sanitary line with restrictions associated with minimal slope, the box culvert, existing tie in location, and existing buildings connection.

POTESTA prides itself on working closely with the client to deliver a product that POTESTA and the client are happy with. POTESTA has worked on many other similar projects for Stonerise and continues to do so.



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GEOTECHNICAL EVALUATION FOR R. E. MICHEL BUILDING

Alpha Associates, Inc.

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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CIVIL AND GEOTECHNICAL ENGINEERING FOR DEVELOPMENT OF MARCELLUS WELL PADS

Stone Energy Corporation

Various Sites, Wetzel County, West Virginia

Potesta & Associates, Inc. (POTESTA) has been working with Stone Energy Corporation to provide civil and geotechnical engineering services related to the development of Marcellus production well pads and other infrastructure improvements in northwestern West Virginia. POTESTA has worked with Stone Energy consultants and contractors to evaluate current geotechnical construction practices and design procedures to development standard details and procedures which will be implemented in the field to implement proper installation and earthwork construction techniques to minimize geotechnical failures

associated with not only well pad construction sites but other support facilities such as compressor/treatment sites, pipelines, haulroads, stream crossings, etc.



POTESTA has also been providing review of current permitting packages to determine if adequate environmental due diligence has been provided with regard to environmental permits. Relevant permits include USACE 404 certification, WVDEP 401 certification, WVDEP Construction Stormwater Permit coverage, County Floodplain Ordinance Applications, etc.

POTESTA has also worked on several large projects for Stone Energy to provide primary design, general technical consulting, and environmental permitting services. These projects have ranged from new pad construction and permitting to geotechnical exploration, design consulting, and field construction observation/testing services for several large slope stability projects. These projects include:

- Pribble Storage Tank Slope Stability Evaluation and Repair – The project included a large active slide area (250,000 CY) which was impacting the foundation of a large aboveground storage tank used for the recirculation and storage of water for hydraulic fracturing operations in the well field. The slide extended to the foundation of a secondary containment tank resulting in the undermining of approximately 100 of the foundations. Work included completion of a geotechnical study and exploration of the site, development of a regrading plan based on the results of laboratory soils testing and slope stability models, and construction observation and

field compaction testing of the fill material during construction. POTESta was also responsible for preparing and gaining approval of a Construction/Stormwater Permit for the work.

- Potts Well Pad Slope Stability Evaluation and Repair – This work included a subsurface exploration study, stability evaluation, and construction observation of a section of failed fill slope associated with the completed well pad. The failed slope required the excavation of toe material to install a shot rock toe buttress to protect a water line and gas transmission line near the toe of the slope.
- Mills/Wetzel No. 3 Well Pad Design and Permitting – POTESta worked with Stone Energy to prepare site grading plans and details for a new production pad site. The work included access roadway design and layout, pad subgrade preparation, cut/fill quantities to result in an earthwork balance of the site, and construction observation and field compaction testing during the work.
- Conley Well Pad Design – POTESta conducted subsurface site exploration work and developed a site grading plan for the proposed pad area, as well as the site access road and a required stream crossing (bridge). POTESta also prepared the required permits including the environmental permits such as USACE 404 and WVDEP 401 certification for the planned bridge construction, as well as the preparation of appropriate floodplain and hydraulic models for the County Floodplain Ordinance Application.
- Schupbach Ridge Road Rehabilitation Project – POTESta worked with the WVDOH to provide construction plans for an approximate 0.9 mile section of Schupbach Ridge Road (CR 20) in Wetzel County, West Virginia. This project included a pavement design that implemented the use of a Full Depth Reclamation (FDR) overlain with the hot-mix asphalt.
- Morris Access Road and Pad Design – POTESta worked with Stone Energy to provide a site grading plan with cut/fill quantities balanced over the site. POTESta also provided construction observations and field compaction testing during the construction of the pad and access road.



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GEOTECHNICAL EVALUATION MONONGALIA GENERAL HOSPITAL EXPANSION

*Alpha Associates, Inc.
Morgantown, West Virginia*

Potesta & Associates, Inc. (POTESTA) was retained by Alpha Associates, Inc. (Alpha) to provide geotechnical evaluation services for the expansion of the Monongalia General Hospital (Hospital) in Morgantown, West Virginia. POTESTA performed a subsurface exploration, which included 36 subsurface test borings and are elaborated as follows:

- Five of these borings were completed to make earthwork recommendations related to the possible excavation of the hillside adjacent to the Hospital.
- Three borings were conducted to allow for recommendations related to a proposed Mechanically Stabilized Earth (MSE) wall.
- Four borings were conducted at corner locations of the proposed central plant expansion.
- Nineteen borings were conducted at locations along the perimeter and within the proposed foundation footprint of the proposed main hospital addition.
- Five borings were located within the area of the proposed parking lot addition.

Rock coring was also performed on eight of the aforementioned borings to assist in the geotechnical recommendations. Samples were gathered and tested to provide more information pertaining to the subsurface conditions. Using the data from the subsurface exploration, POTESTA was able to provide recommendations pertaining to, but not limited to, fill material to be used, the MSE wall, earthwork excavation, groundwater, specific shallow foundations, as well as general foundations, settlement, pavement, and provided general geotechnical considerations.



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GEOTECHNICAL EVALUATION MONONGALIA GENERAL HOSPITAL ACCESS ROAD

*Alpha Associates, Inc.
Morgantown, West Virginia*

Potesta & Associates, Inc. (POTESTA) was retained by Alpha Associates, Inc. (Alpha) to provide geotechnical evaluation services for the Monongalia General Hospital access road in Morgantown, West Virginia. POTESTA performed a subsurface exploration, which included nine subsurface test borings and are elaborated as follows:

- Four of these borings were terminated before refusal encountered where a minimum required depth of 5 feet below the proposed road surface elevation was achieved.
- Two borings were terminated upon refusal and no rock core was collected.
- The remaining three borings went to refusal and included rock coring to assist in the geotechnical recommendation.

Samples were gathered and tested to provide more information pertaining to the subsurface conditions. Using the data from the subsurface exploration, POTESTA was able to provide recommendations pertaining to, but not limited to, fill material to be used, compaction, earthwork excavation, groundwater, site preparation and development, possible retaining walls, slopes in the road, and provided general geotechnical considerations.



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LANDSLIDE STABILIZATION PROJECT

Columbia Gas Transmission Blue Creek, West Virginia

Columbia Gas Transmission (Columbia) operates and maintains a natural gas storage field north of Charleston, West Virginia at Blue Creek. Potesta & Associates, Inc. (POTESTA) was contacted during the fall of 2004 to provide professional geotechnical services related to the preparation of a stabilization plan for a localized soil slope failure approximately one acre in size. The affected area was associated with a valve set and feeder line servicing a storage field well which was unhooked taking the well out of service.



POTESTA worked with Columbia over the winter of 2004-05 to design a regrading plan for the slide mass which included perimeter ditches and drainage control, as well as the construction of an underdrain and toe-key for the slide. A high-pressure gas main located immediately above the top of the slide had to remain in service. During the work, the slide mass continued to move up the hill threatening the integrity of the active high-pressure gas main. POTESTA worked with Columbia and the contractor during the regrading to provide an emergency plan to stabilize the gas main which included the excavation of sandstone riprap from an area immediately adjacent to the site which was utilized as buttressing material stabilizing the gas main and the slide area.



The project, which was finalized during the late winter months, resulted in many field changes which were coordinated with both the owner and the contractor to insure the integrity of the gas main resulting in the continued service of natural gas produced from the field during peak demand months.



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