EXPRESSION OF INTEREST

A/E Services- Improvements to Five Boating Access Sites
Kanawha County, West Virginia

Solicitation Number: CEOI 0310-DNR1700000006

Date: June 12, 2017

POTESTA
Engineers and Environmental Consultants

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

POTESTA
Engineers and Environmental Consultants
7012 MacCorkle Avenue, SE, Charleston, WV 25304 - (304) 342-1400 • FAX (304) 343-9031; www.potesta.com

June 14, 2017

Mr. Guy Nisbet
Department of Administration, Purchasing Division
2019 Washington Street East
Charleston, West Virginia 25305-0130

RE: Expression of Interest for West Virginia Division of Natural Resources (WVDNR)
A/E Services for Improvements to Five Boating Access Sites
Potesta Project No. 0101-17-0210

Dear Mr. Nisbet:

Potesta & Associates, Inc. (POTESTA) is pleased to submit our Expression of Interest to provide professional engineering and environmental consulting services for improvements to five boating access sites along the Elk River.

POTESTA has completed numerous projects with the WVDNR over the past 20 years of providing engineering and environmental consulting services. We are proud to be involved with local community projects of all magnitudes. Our employees are active in the community and take pride in developing safe access and protection of the natural resources of West Virginia. We will make sure that this project receives priority and regular communication with project updates are provided to the WVDNR to allow for a project that moves quickly and stays under budget. We know that communication is the key to successful projects. Our key personnel will remain in close contact with WVDNR personnel throughout the entire project. POTESTA's experienced engineers, scientists, and technical professionals have successfully completed many river, lake, and reservoir projects and know that each pose unique challenges. We believe the combination of our approach and our experience makes us the most qualified group for this project.

We look forward to serving the WVDNR and working together to improve public access along the lower Elk River. Should you have any questions, please call and we can discuss our experience and capabilities in further detail.

Sincerely,

POTESTA & ASSOCIATES, INC.

Dana L. Burns

Dana L. Burns, P.E.
Vice President

DLB:JWB/kjt

Enclosures

ORIGINAL

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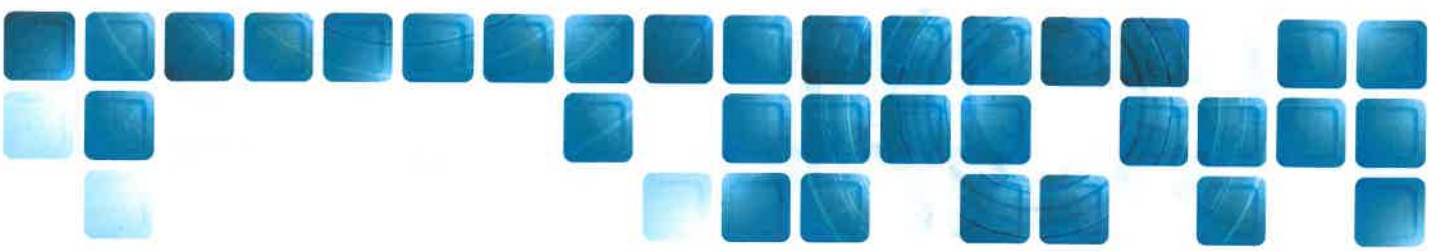


INSURANCE CERTIFICATE, SIGNED SOLICITATION, CERTIFICATION FORM, PURCHASING AFFIDAVIT , INSURANCE CERTIFICATE, AND ADDENDUM ACKNOWLEDGEMENT FORM

Client#: 1114469 POTESASS

ACORD™ CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 3/08/2017

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	CONTACT NAME: Brenda Samples	
USI Ins Svcs C/L Charleston 1 Hillcrest Drive East Charleston, WV 25311 304 347-0611	PHONE (A/C, No, Ext): 304 347 0661	FAX (A/C, No): 304 347 0605
	E-MAIL ADDRESS: Brenda.Samples@usi.com	

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER A : Travelers Indemnity Co. of Amer	25666
INSURER B : Travelers Property Cas. Co. of	25674
INSURER C : Farmington Casualty Company	41483
INSURER D : Lexington Insurance Company	19437
INSURER E :	
INSURER F :	

INSURED
Potesta & Associates, Inc.
7012 MacCorkle Avenue SE
Charleston, WV 25304

COVERAGES CERTIFICATE NUMBER: 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	
A	X COMMERCIAL GENERAL LIABILITY			P6308G476376TIA17	03/07/2017	03/07/2018	EACH OCCURRENCE	$1,000,000
	CLAIMS-MADE X OCCUR						DAMAGE TO RENTED PREMISES (Ea occurrence)	$300,000
	X BI/PD						MED EXP (Any one person)	$10,000
	GEN'L AGGREGATE LIMIT APPLIES PER:						PERSONAL & ADV INJURY	$1,000,000
	POLICY PRO-JECT LOC						GENERAL AGGREGATE	$2,000,000
	OTHER:						PRODUCTS - COMP/OP AGG	$2,000,000
								$
B	AUTOMOBILE LIABILITY			BA8G476339	03/07/2017	03/07/2018	COMBINED SINGLE LIMIT (Ea accident)	$1,000,000
	X ANY AUTO						BODILY INJURY (Per person)	$
	ALL OWNED AUTOS / SCHEDULED AUTOS						BODILY INJURY (Per accident)	$
	X HIRED AUTOS / X NON-OWNED AUTOS						PROPERTY DAMAGE (Per accident)	$
								$
B	X UMBRELLA LIAB X OCCUR			CUP8G476376	03/07/2017	03/07/2018	EACH OCCURRENCE	$9,000,000
	EXCESS LIAB CLAIMS-MADE						AGGREGATE	$9,000,000
	DED X RETENTION $10000							$
C	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY Y/N			UB8G568511	03/07/2017	03/07/2018	X PER STATUTE OTH-ER	
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? N	N/A					E.L. EACH ACCIDENT	$1,000,000
	(Mandatory in NH)						E.L. DISEASE - EA EMPLOYEE	$1,000,000
	If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - POLICY LIMIT	$1,000,000
D	Professional			028174922	03/07/2017	03/07/2018	$5,000,000 ea incident	
	Pollution			028174922	03/07/2017	03/07/2018	$5,000,000 aggregate	
							Ded $25,000	

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

CERTIFICATE HOLDER

Potesta & Associates, Inc,
7012 MacCorkle Avenue SE
Charleston, WV 25304

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

Jamie P. Crouse

BTRZP

Purchasing Divison
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: 331616

Doc Description: A/E Services-Improvements to Five Boating Access Sites

Proc Type: Central Contract - Fixed Amt

Date Issued	Solicitation Closes	Solicitation No	Version
2017-05-10	2017-06-15 13:30:00	CEOI 0310 DNR1700000006	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:

Potesta & Associates, Inc.
7012 MacCorkle Avenue, SE
Charleston, WV 25304

FOR INFORMATION CONTACT THE BUYER

Guy Nisbet
(304) 558-2596
guy.l.nisbet@wv.gov

Signature X Dana L. Burns **FEIN #** 31-1509066 **DATE** 6/14/17

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

FORM ID : WV-PRC-CEOI-001

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.

Dana Burns, Vice President
(Name, Title)

Dana Burns, Vice President
(Printed Name and Title)

7012 MacCorkle Avenue, SE, Charleston, WV 25304
(Address)

304-342-1400/ 304-343-9031
(Phone Number) / (Fax Number)

dlburns@potesta.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.

Potesta & Associates, Inc.
(Company)

Dana L. Burns
(Authorized Signature) (Representative Name, Title)

Dana L. Burns, Vice President
(Printed Name and Title of Authorized Representative)

6/14/17
(Date)

304-342-1400/ 304-343-9031
(Phone Number) (Fax Number)

ADDENDUM ACKNOWLEDGEMENT FORM
SOLICITATION NO.:

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.

Potesta & Associates, Inc.
Company

Dana L. Burns
Authorized Signature

6/14/17
Date

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

STATE OF WEST VIRGINIA
Purchasing Division

PURCHASING AFFIDAVIT

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

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

DEFINITIONS:

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

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

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

AFFIRMATION: By signing this form, the vendor's authorized signer affirms and acknowledges under penalty of law for false swearing (*W. Va. Code* §61-5-3) that neither vendor nor any related party owe a debt as defined above and that neither vendor nor any related party are in employer default as defined above, unless the debt or employer default is permitted under the exception above.

WITNESS THE FOLLOWING SIGNATURE:

Vendor's Name: Potesta & Associates, Inc.

Authorized Signature: Dana L. Burns Date: 6/14/17

State of West Virginia

County of Kanawha, to-wit:

Taken, subscribed, and sworn to before me this 14 day of June, 2017.

My Commission expires February 14, 2024

AFFIX SEAL HERE

NOTARY PUBLIC Rhonda L. Henson

OFFICIAL SEAL
Rhonda L. Henson
Notary Public
State of West Virginia
My Commission Expires
February 14, 2024
1978 Wolf Pen Drive
Charleston, WV 25312

INTRODUCTION, UNDERSTANDING OF PROJECT, AND PROJECT APPROACH

Expression of Interest

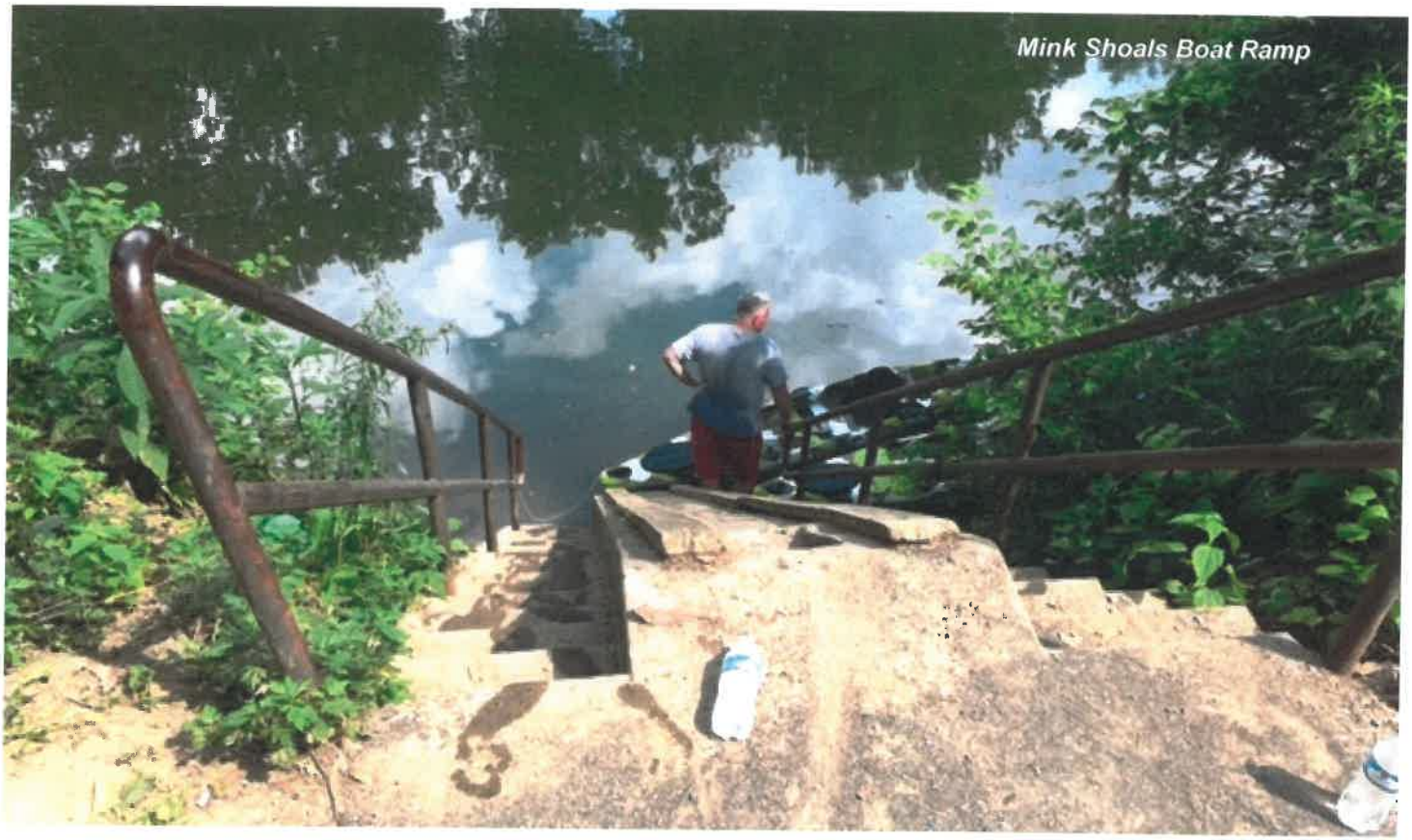
INTRODUCTION

Potesta & Associates, Inc. (POTESTA) appreciates the opportunity to submit this Expression of Interest (EOI) to the West Virginia Purchasing Division for the West Virginia Division of Natural Resources (WVDNR) for engineering and other related professional services relating to the creation or improvement of the proposed five boating access locations along the Elk River in Kanawha County. Our commitment is to provide quality service, rapid response and project completion, and to exceed your expectations for services performed under this project.

UNDERSTANDING OF PROJECT

The Elk River is popular destination for anglers and boaters with it's excellent water quality, proximity to West Virginia's major center of population, and home to black bass, catfish, musky, and various other fish species. However, POTESTA understands that access in to the lower Elk River is limited in certain areas. The creation or improvements of five sites near Mink Shoals, Big Chimney, Blue Creek, Upper Clendenin, and Lower Clendenin will give boaters better access so everybody can enjoy their recreational and fishing experience. POTESTA envisions enhanced public access to the Elk River, efficient boat unloading and loading, improved temporary parking, and improvement to response time for emergency personnel.

POTESTA understands that this project must conform to the WVDNR's vision, objectives, current law, current codes, while following the plans and executing within the project budget. The ideal river facilities should provide safe, efficient, and attractive access for the public as well as stand up to erosion and abuse, all the while making the most of available space and project budget. POTESTA understands the various project constraints and aims to provide a design that exhibits a balance between function, budget, and constructability that will serve West Virginia for generations to come.



PROJECT APPROACH

POTESTA's plan for developing a design can be broken down into the following stages:

- ***Conceptual Design and Feasibility***
- ***Design Development***
- ***Bid Documents***
- ***Construction***

Conceptual Design and Feasibility- During this stage we will work with WVDNR to establish options for several conceptual designs, as there will likely be various potential configurations for the improved boat ramps and parking areas. POTESTA anticipates completing a topographic survey of existing conditions to develop site mapping (or utilize existing mapping), as well as conduct a site visit and a preliminary geotechnical investigation (or utilize previous geotechnical information) to inform the conceptual designs. A project "kick-off" meeting with the WVDNR at the project site will initiate this stage.

After working with WVDNR to develop the options for improvements, POTESTA will prepare a summary report that describes each conceptual design, lists the relative advantages and disadvantages, and provides preliminary estimates of probable construction costs for each option.

Throughout this "brainstorming" stage of conceptual design, POTESTA anticipates major changes as the design evolves and options are weighed by their feasibility, cost, and the degree to which they meet the project objectives. Based on POTESTA's summary report of the conceptual design options, WVDNR can provide comments and select the preferred option before proceeding to the next stage of design development.

Design Development- During this stage of design, POTESTA will begin to develop detailed drawings for the design. Typically, items such as parking layout, pedestrian access, boat ramp anchoring materials, preliminary site grading, and miscellaneous construction details are developed.

Based on the conceptual design and WVDNR's previous input, POTESTA will provide WVDNR with a design development drawing submittal that will include preliminary drawings including a site layout, grading plan, roadway and boat ramp profiles, site cross section(s), storm water management plan, erosion and sediment control plan, and miscellaneous details. Along with the preliminary drawing package, POTESTA will refine the estimate of construction costs and work with WVDNR to make necessary material/layout changes to allow for the design to stay within the project budget.

The level of detail of this drawing package is typically sufficient for most permit applications/submittals (e.g., Army Corps of Engineers, WVDEP, WV SHPO, county/city floodplain coordinators, WVDOH - dependent on site). During this stage, POTESTA will prepare the required permit applications to allow for adequate review and comment periods before construction. Once WVDNR has reviewed the design development submittal and provided comments, POTESTA will prepare to move to the next stage of the design, Bid Documents.

Bid Documents- Following the design development stage, POTESTA will work to progress the drawings to "bid-level" detail. WVDNR will only be required to provide minor input while POTESTA puts the finishing touches on the plans and prepares technical specifications (or drawing notes as specifications) and contract documents to allow the project to move to bid.

Once the permit applications that were submitted in the previous stage have been approved and the drawing set is finalized, POTESTA will assemble a bid package and provide to the WVDNR for review prior to the advertisement for bid.

PROJECT APPROACH

meeting, respond to bidders' questions, issue the necessary addenda, and assist DNR in evaluating the bids throughout the bidding process.

Construction- POTESTA also offers construction administration and monitoring services that will allow construction to progress smoothly. We have found that facilitating communication between the owner, contractor, and engineer during construction helps lead to quick resolution of issues that can arise during the construction phase. POTESTA can provide quality assurance testing (e.g. soil compaction, concrete, asphalt), construction observation, as well as review of pay applications and shop-drawings to ensure that products and materials conform to the design and that the specified material standards are met.

As the design process follows the steps outlined above, POTESTA will emphasize regular communication with the DNR to ensure that expectations are being met, the project timeline is being maintained, and the project budget remains intact. We believe that through regular communication with DNR, we can exceed the project expectations and provide a cost-effective design solutions.

PROFESSIONAL EXPERIENCE AND PAST PERFORMANCE

Expression of Interest

PROFESSIONAL EXPERIENCE

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 86 experienced engineers, scientists, and support personnel with branch offices in Morgantown, West Virginia and Winchester, Virginia. Quality is extremely important to POTESTA. We have won six "Gold Award in the American Council of Engineering Companies – West Virginia Section" engineering excellence awards competition and approximately 80 percent of our work is from repeat clients; we believe this attests to our commitment for a quality project.

Corporate Office in Charleston, West Virginia

POTESTA takes prides in our ability to provide our clients with innovative and concise engineering design packages that will allow more of the client's money to be spent on actual construction rather than engineering design fees. POTESTA has the ability to complete every facet of the project from beginning to end, from the preliminary study through final design and construction observation/management. Frequent communication will be made with WVDNR and other design professionals to review the completed activities and obtain input for the design process.

Environmental engineering, regulatory liaison, and environmental compliance are also areas of exceptional strength for POTESTA. Ronald R. Potesta, President, is a former director of the WVDNR.

Our clients include local, state, and federal government agencies, public service districts, municipalities, county commissions, manufacturers, utility companies, waste management companies, architects, engineering design firms, attorneys, financial institutions, insurance companies, land developers, construction companies, and chemical and mining companies.

POTESTA's engineers and environmental scientists have successfully participated in numerous lake and river projects, including design of a boat ramp in the Town of Granville, on the Monongahela River. POTESTA was selected by the West Virginia Department of Natural Resources to prepare design documents and a bid package to pave a parking and boat launch area at Cheat Lake in Monongalia County. We also provided subsurface exploration, coordination of laboratory testing, and preparation of a geotechnical report in support of the Waterfront Marina on the Monongahela River in Morgantown. POTESTA is currently working under contract for a large chemical manufacturer performing permitting for a barge mooring facility in Washington, West Virginia.

Areas of expertise required, but not limited to, for this project include:

- Civil/Site Design
- Geotechnical Analysis and Design
- Surveying/GIS Mapping
- Permitting
- Environmental Site Assessments and Remediation
- Water and Wastewater Engineering
- Environmental Sampling
- Biological and Toxicological Services
- Construction Monitoring

Detailed descriptions of these services are included in **Appendix A**.

PAST PERFORMANCE

POTESTA has been working with the WVDEP, WVDOH, WVDOT, WVDHHR, and WVDNR since 1997 and thus understands the level of detail and expectations for the state agencies.

Cost Control– The project manager is responsible for monitoring the project budget and keeping the principal-in-charge informed of its status. POTESTA's staff enters time into POTESTA's InFocus computer system on a daily and/or weekly basis. POTESTA's project managers can access InFocus at any time, thus allowing real-time control of project costs. In addition, field representatives routinely keep track of subcontractor costs on a daily basis. Thus we can, in effect, keep track of the total project costs on a weekly basis. Our subcontractors commonly invoice at monthly intervals and there is seldom a discrepancy between our field representative's pay items and our subcontractor's invoice.

Quality of Work– Submittals to the WVDNR are reviewed and commented on by the project manager and the principal-in-charge prior to submittal to the WVDNR. POTESTA utilizes standardized Quality Assurance/ Quality Control (QA/QC) practices such as consistency checks, color coding of checked copies/calculations, and review of method of measurements versus quantity tallies to insure QA/QC expectations are met.

Schedule Control– Direct responsibility for schedule control lies with the project manager. Initially, the project manager will review schedule requirements see how they can be achieved given the anticipated scope of work. As the project progresses, the project manager will monitor progress and compare it with the established schedule on a weekly basis keeping the principal-in-charge aware of the schedule's status. In this manner, the principal-in-charge can make staff adjustments to allow the project manager to maintain the project schedule. If circumstances develop that make it impossible to maintain the project schedule, the project manager will contact the WVDNR project manager to develop a mutually acceptable adjustment to the schedule and/or work plan.

STAFF QUALIFICATIONS AND PROPOSED STAFFING PLAN

Expression of Interest

STAFF QUALIFICATIONS

POTESTA has assembled a team that has historically served state agencies on numerous projects around the State of West Virginia. In fact, our staff has 150+ years' experience working on contracts with the State of West Virginia.

The key personnel committed to the project are experienced in their respective roles and were specifically chosen for this project based on their experience with civil/site design, construction administration, geotechnical analysis and design, surveying/GIS mapping, permitting, environmental site assessments and remediation, water and wastewater engineering, environmental sampling, and biological and toxicological services.

Resumes are included in **Appendix B** and staff certifications and degrees are included in **Appendix C**.

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

- 39 Years of Experience
- Management of design and permitting of civil, environmental, and geotechnical engineering projects.
- Managed over 100 projects requiring preparation of construction drawings and technical specifications.

D. MARK KISER, P.E., L.R.S.
CHIEF ENGINEER

- 33 Years of Experience
- Civil engineering with emphasis on design and construction administration.
- Slope design, right-of-way plans, roadway plans, drainage calculations, utility coordination, and quantities.

CHRISTOPHER A. GROSE
SENIOR ENGINEERING ASSOC.

- 28 Years of Experience
- Geological/geotechnical engineering related to subsurface exploration studies, soil and rock slope design, foundation system design, and hydrogeology.

DAVID B. SHARP, P.E.
BRANCH MANAGER

- 23 Years of Experience
- Geotechnical engineering , including site design, geotechnical design, hydrologic/hydraulic design; municipal water and wastewater projects.

TERENCE C. MORAN, P.E.
SENIOR ENGINEER

- 27 Years of Experience
- 100+ water/wastewater projects
- Preliminary engineering, environmental assessments, funding applications, hydraulic analysis, design, drawings, specifications, cost estimates, bid documents, and construction oversight.

JESSICA L. YEAGER
SENIOR SCIENTIST

- 23 Years of Experience
- Clean Water Act permitting and compliance, including water pollution control permitting/compliance, stream/wetland delineation, and permitting, NEPA documents, and biological studies.

PROPOSED STAFFING PLAN

POTESTA's staff of 86 allows us to respond quickly and complete projects in timely manner. POTESTA's current workload is such that we can immediately provide our staff to work on assignments under this project. POTESTA's engineering department includes civil, geotechnical, environmental, mining and mechanical engineers. The firm's environmental department consists of biologists, geologists, chemists, environmental scientists and environmental engineers, many with advanced degrees (Masters and Ph.D. level). Our diverse group of registered professional engineers is supported by a talented team of engineers, designers and surveyors.

Contact Information

Principal-in-Charge:

Dana L. Burns, P.E., P.S.
7012 MacCorkle Avenue, SE
Charleston, WV 25304
(304) 342-1400
dlburns@potesta.com

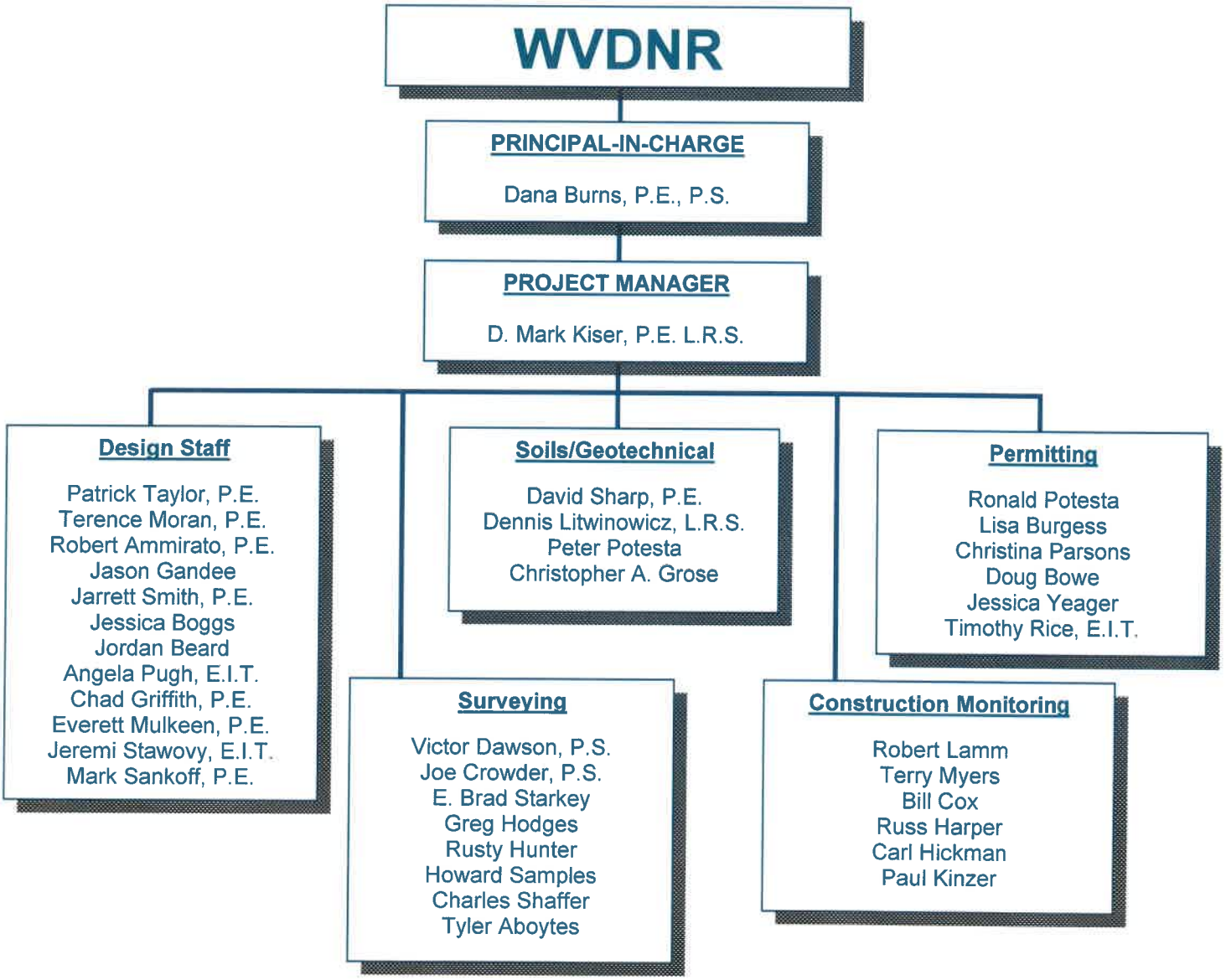
Project Manager:

D. Mark Kiser, P.E., L.R.S.
7012 MacCorkle Avenue, SE
Charleston, WV 25304
(304) 342-1400
dmkiser@potesta.com

PROPOSED STAFFING

Breakdown of Category of Staff (86):

10	Admin./Accounting	5	Environmental Scientists	2	Mechanical Engineers
1	Aqua Culturalist	2	Fish & Wildlife Specialists	2	Mining Engineers
2	Aquatic Ecologists	2	Geologists	10	Surveyors
8	Biologists	3	Geotechnical Engineers	9	Technicians
9	CADD	1	GIS Specialist	1	Toxicologist
16	Civil Engineers	1	Horticulturalist		
1	Economist	1	Information Technologist		



PAST PROJECTS

Expression of Interest

PAST PROJECTS

A select list of our team's relevant experience are included below.

DESCRIPTION	PROJECT MANAGER	TYPE OF PROJECT	PROJECT GOAL	TASKS COMPLETED
*Waterfront Marina ***Paradigm Architecture*** Morgantown, WV	Dave Sharp, P.E. dsharp@potesta.com	Geotechnical engineering	To provide geotechnical engineering services for proposed Waterfront Marina	Subsurface exploration, coordination of laboratory testing, preparation of geotechnical report, and foundation recommendations.
*Boat Ramp ***Town of Granville*** Granville, WV	Dave Sharp, P.E. dsharp@potesta.com	Civil engineering	To provide civil engineering design services for a new public boat ramp and river access area	Surveying, coordination and consulting with various groups and agencies, civil/site design and construction documents, construction observation/administration.
*Dam Inspection ***Coolfont Resort*** Berkeley Springs, WV	K. Joe Knechtel, P.E. kjknechtel@potesta.com	Dam inspection	Perform a dam inspection for the Coolfont (Lake Siri) Dam	FOIA, met with client, site visit for visual observation, prepared and submitted dam inspection report.
Barge Mooring Facility ***Client Confidential*** Washington, WV	Lisa Burgess lkburgess@potesta.com	Permitting/ approvals	Perform permitting for a barge mooring facility	Various permitting/approvals, endangered species consultation, land inquiry request, state historic preservation office consultation, informal meetings with other agencies, surveying/preliminary engineering schematic, determinations of pool elevations, geotechnical/subsurface exploration and analysis. **(under design)**
*West Fork River Watershed Survey ***Client Confidential*** Lewis, Harrison, and Marion Counties, WV	Ronald Potesta rrpotesta@potesta.com	Water quality and potential sources of impairment	Assess water quality and determine potential sources of impairment in a 73-mile reach of the West Fork River	Water quality and benthic macroinvertebrate surveys of West Fork River watershed, compilation and review of historical water quality and flow data, and compilation of existing data from the US Army Corps of Engineers.
*Pipeline River Crossings ***West Virginia American Water*** Kanawha County, WV	Ronald Potesta rrpotesta@potesta.com	Consulting services	Provide consulting services related to five pipeline river crossings on the Elk and Kanawha Rivers	Three of the projects were to replace HDPE line with ductile iron pipe and two were for new ductile iron pipe construction crossings. POTESTA developed a permitting strategy designed to pursue USACE permits.
*Piney Creek Dam ***Raleigh County Recreation Authority*** Surveyor, WV	Dana Burns, P.E., P.S. dlburns@potesta.com	Design and oversee construction	Design and oversee construction for a new dam on Piney Creek adjacent to Lake Fitzpatrick Park	Development of a preliminary evaluation report, design of rock fill dam, preparation of permits, preparation of bidding documents, contract administration/ monitoring, quarterly inspections and reports.
Elk River Compressor Station ***Basic Systems, Inc.*** Kanawha County, WV	Peter Potesta pspotesta@potesta.com	Engineering services	Design of a proposed retaining wall along the Elk River	Stability evaluation and civil design and permitting.
Corrective Measures ***Solutia, Inc.*** Nitro, WV	Mark Kiser, P.E., L.R.S. dmkiser@potesta.com	Environmental and engineering consulting services	Stabilization of approximately 2,500 feet of the east bank of the Kanawha River along a portion of property	Surveyed cross section along the river bank and extending into river, slope stability analysis, seepage analysis, and reviewed river modeling information. POTESTA developed detailed design plans, including drawings, cross sections, technical specifications, estimated construction quantities, and bid documents and prepared applications for regulatory approvals.

Additional details on this project are in Appendix D.

Expression of Interest

PAST PROJECTS

DESCRIPTION	PROJECT MANAGER	TYPE OF PROJECT	PROJECT GOAL	TASKS COMPLETED
*Development Plan ***Thomas Point Associates*** Thomas, WV	Dana Burns, P.E., P.S. dlburns@potesta.com	Revitalization of the city of Thomas	Development Plan for tourism	Develop a trailhead plan in Thomas for the Highland Scenic Trail running from Elkins to Mount Storm, WV, and a schematic design for possible recreation considerations.
*Mixing Zone and Diffuser ***Bayer Crop Science*** Kanawha County, WV	Terence Moran, P.E. tcmoran@potesta.com	Installation of a diffuser on the Ohio River	Mixing zone study, regulatory phase services, design and construction observation services	Field work and modeling for the mixing zone study, prepared modification of NPDES permit, developed topographic mapping, designed effluent line and diffuser, stabilization of 350 feet of river bank, and performed construction observation (including underwater observation).
*Measle Fork Refuse ***West Virginia Department of Environmental Protection (WVDEP)*** Wyoming County, WV	Mark Kiser, P.E., L.R.S. dmkiser@potesta.com	Reclamation	Regrade/cover refuse material on 25-acre site with 7 acres of steep slopes with exposed coal refuse and stabilize 2,600 feet to prevent further erosion of streambank	Delineation of the watershed of Measle Fork, hydrologic and hydraulic evaluation, developed stream stabilization measures, prepared applications for regulatory approvals, prepared drawings, technical specifications, contractor bid form, engineer's construction cost estimate, and calculations brief. POTESTA also attended the pre-bid and pre-construction conferences.
Reynolds Avenue Slip ***Elk Valley Public Service District*** Elkview, WV	Mark Sankoff, P.E., P.S. masankoff@potesta.com	Engineering services	Provide engineering services for a section of failed riverbank slope situated along the bank of the Elk River	Surveying, site topographic mapping, collection of disturbed soil samples for laboratory analysis, develop stabilization and grading plan for failed slope, prepare a set of construction regrading plans (include design, alignment and related details for the replacement of both the sanitary force main sewer, as well as the gravity sewer line), permitting, and construction support. **(under design)**
*Cabela's Retail Store ***Ridgeline, Inc.*** Charleston, WV	Mark Kiser, P.E., L.R.S. dmkiser@potesta.com	Civil/site design	Provide civil engineering services for a new Cabela's store	Alta survey, subsurface exploration, grading plan, stormwater collection system, pavement design, utility extension services, permitting services, local approval, and MM -109 permit.
*Parking Lot Renovation ***St. John University Catholic Church*** Morgantown, WV`	Dave Sharp, P.E. dsharp@potesta.com	Civil engineering	Provide civil engineering services for a parking lot renovation	Conceptual plan, permitting, site topographic survey, layout of roadway and parking, layout of three site retaining walls and review of design, utility relocation, abandonment of one site entrance and relation of main access, conversion of additional entrance to a one-way exit, signage and traffic flow plan, and erosion and sediment control through Morgantown Utility Board.

Additional details on this project are in Appendix D.

REFERENCES

REFERENCES

POTESTA is providing references from current and former clients. Our references can attest to POTESTA's professionalism, experience and expertise, and ability to deliver professional engineering services in an accurate, efficient, and cost-effective manner.

Town of Granville
Ronald Snyder
Municipal Administrator
Phone: 304-599-5080
Email:rwsnyder301@comcast.net

WVDEP-AML
Nick Estes
Phone: 304-926-0499, Ext. 1521
Email: Nick.R.Estes@wv.gov

WVDEP-Special Reclamation
David McCoy
Phone: 304-457-3219, Ext. 43218
Email: David B. McCoy@wv.gov

Monongahela River- Project Site Before Construction

POTESTA & ASSOCIATES, INC.

Civil Engineering and Design

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

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

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

Our design services include:

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

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

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

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

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POTESTA & ASSOCIATES, INC.

Geotechnical Engineering

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

SUBSURFACE EXPLORATIONS

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

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

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

- Drilling and Rock Coring Techniques (augers, rotary bits, Geoprobe™, etc.)
- Sample Collection Methods (split spoons, shelby 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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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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POTESTA & ASSOCIATES, INC.

Permitting Services

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

AIR

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

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

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

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

MINING

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

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

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

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POTESTA & ASSOCIATES, INC.

Environmental Site Assessment and Remediation

During the transaction of business, whether involving property transfers or the completion of environmental audits, it may be necessary to perform environmental site assessment (ESA) activities to identify actual and potential environmental liabilities and perform remediation to mitigate these liabilities. Potesta & Associates, Inc. (POTESTA) professionals have performed numerous Phase I and Phase II site assessments designed to assist clients with property assessments and are experienced with many different remediation technologies. These activities are completed in accordance with applicable environmental regulations, American Society for Testing and Materials (ASTM) guidelines and other accepted industry practices.

PHASE I: INITIAL SITE EVALUATION

The All Appropriate Inquiry (AAI) Rule (effective November 1, 2006) requires that Phase I ESAs be performed according to guidance outlined by the U.S. Environmental Protection Agency (USEPA) for the user to potentially qualify for the innocent landowner defense. POTESTA professionals conduct Phase I site assessments in accordance with current ASTM standards, "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process," the standard compliant with the AAI Rule. Phase I assessments generally involve only non-intrusive methods such as deed and tax searches, review of Sanborn maps, site visits, review of regulatory files for the site and surrounding properties, and interviews with individuals knowledgeable of site history and activities.

PHASE II: SITE INVESTIGATION WITH SAMPLING

Phase II site assessments involve sampling and are generally conducted when potential contaminants or sources of contaminants have been identified during the Phase I process. Samples may be collected from structural materials (such as asbestos sampling), containers (such as drums, tanks and transformers), soil, surface water or groundwater. A Phase II site assessment may involve placement of groundwater monitoring wells.

Soil samples are typically collected with a hand auger, rotary drill rig and split spoon sampler or a direct-push sampling rig. Groundwater samples may be collected from direct-push sample borings, temporary piezometers, or groundwater monitoring wells. Established sampling methods, preservation and decontamination procedures are strictly adhered to during sampling events. Samples are submitted to a qualified laboratory and analyzed for potential contaminants identified during the Phase I process or field observations. POTESTA professionals review the analytical results to determine if additional site assessment is necessary. Data generated during the Phase I and Phase II assessment processes are utilized to establish the nature and extent of environmental liabilities.

Phase I and Phase II activities may be combined to increase efficiency and reduce overall cost.

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POTESTA & ASSOCIATES, INC.

Water and Wastewater Engineering

Our professional staff is dedicated to providing quality engineering services for various types of water treatment and distribution systems, as well as wastewater management, collection and treatment systems. The following is a list of some of the services Potesta & Associates, Inc. is capable of providing:

WATER AND WASTEWATER DESIGN

- Feasibility Studies
- Conceptual Design
- Final Design
- Bidding and Construction
- Construction Monitoring
- Wastewater Audits
- Wastewater Minimization Studies
- Engineer's Cost Estimates
- Small Flows Design (Traditional and Innovative Treatment Systems for Low Volume Flows)
- Sewage Collection and Treatment
- Water Treatment and Distribution
- Industrial Wastewater Treatment
- Wastewater Treatment Plant Design
- Water Treatment Plant Design
- Water and Sewer Line Extensions
- Remediation Systems
- Landfill Leachate Treatment
- Storage Tank Design
- Flow Measurement
- Surveying/GPS and Mapping
- Permitting and Regulatory Liaison
- Combined Sewer Overflow (CSO)
- Management, Sampling and Modeling

STORMWATER MANAGEMENT

- Hydraulic Conveyance Structure Design (Culverts, Channels, Drop Inlets, Etc.)
- Stormwater Retention/Detention Pond Design
- Stormwater Pond Modeling
- Floodplain Identification and Management Strategies
- Hydrologic and Hydraulic Analysis and Evaluations and Modeling
- Construction Monitoring
- Surveying
- Permitting and Regulatory Liaison

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POTESTA & ASSOCIATES, INC.

Sampling Services

Many environmental projects involve the collection of samples. Potesta & Associates, Inc.'s (POTESTA) professionals have completed numerous sampling events involving air, soil, water, waste materials and other media. POTESTA's strict quality assurance/quality control sampling procedures and protocols have been established to assure that samples are obtained which are representative of the sampled matrix and are free from external contaminants.

Established regulatory and industry procedures and protocols have been incorporated into the QA/QC Plan. Trip blanks, field blanks, equipment rinsate blanks, and duplicate samples are utilized where applicable. Strict decontamination procedures have been established to assure that no cross contamination of samples occurs. A chain-of-custody form is completed and accompanies the samples from collection to delivery to the analytical laboratory.

AIR SAMPLING

Air samples may be collected to evaluate initial atmospheric hazards prior to development of a site-specific health and safety plan, to monitor air quality during site activities, to evaluate air quality in the work place, and to conduct leak detection and repair (LDAR) surveys. POTESTA personnel possess the necessary experience with test methods and sampling equipment to complete these sampling events.

ASBESTOS SAMPLING

Asbestos containing material should be considered when renovating institutional, industrial, commercial, and residential facilities. Demolition of structures also involves consideration of asbestos. POTESTA can perform asbestos inspections and sampling, and provide construction oversight during abatement work.

SOIL SAMPLING

Soil samples may be collected manually with sampling scoops or a hand auger, with a rotary drill rig equipped with a split spoon sampler or with a direct-push sampling rig. Samples are collected by qualified personnel and field screened where applicable. Soil samples collected during the drilling and sampling activities are visually classified and logged by an experienced geologist, engineer, or technician in accordance with the Unified Soil Classification System. Samples are placed in appropriate containers for subsequent physical and/or analytical testing.

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POTESTA & ASSOCIATES, INC.

Biological and Toxicological Services

Biological assessments and surveys are increasingly being used in both terrestrial and aquatic systems to develop regulations, monitor compliance, and indicate the effectiveness of environmental programs. Toxicological testing and biological monitoring are often included as permit requirements or used during negotiations.

In many cases, biological assessments can be used to negotiate alternatives to permitting requirements or to satisfy regulatory agencies that no environmental damage is occurring. Biological and toxicological assessments may be used to demonstrate the success of endpoints in remediation, recovery, and restoration projects.

Potesta & Associates, Inc. offers a full range of biological and toxicological services to meet our clients' needs.

- Biological Surveys and Rapid Bioassessments
- Variance Negotiations
- Industrial Site Remediation
- Toxicity Identification Evaluations
- Toxicity Reduction Evaluations
- Wetland Delineation and Remediation
- Stream Remediation and Restoration
- Endangered Species Surveys
- Environmental Risk Assessments
- Human Risk Assessments
- Natural Resource Damage Assessments
- Statistical Analysis and Database Management
- Pilot-Scale Testing and Treatability Studies
- Exotic Species Control/Management

Biological and toxicological assessments will be conducted using both traditional and innovative methodologies. We generate high-quality data that meets our clients' needs in a cost-effective manner.

The tools used to collect data during our evaluations include:

- Water Chemistry Analysis
- Water Column, Sediment and Soil Toxicity Testing
- In-Situ and System-Specific Testing and Monitoring
- Habitat Assessments
- Biological Surveys and Rapid Bioassessments
- Surface Water Modeling
- Bioaccumulation and Biomonitoring Analysis
- Global Positioning Surveys

Our scientists have backgrounds in toxicology, aquatic ecology, fisheries, botany, wildlife science, geology and hydrology. We are prepared to utilize our combined resources to develop projects to meet your individual needs. Our scientists' diverse backgrounds complement our engineering team. Our staff is dedicated to addressing the environmental needs of each client in a correct, affordable and timely manner.

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POTESTA & ASSOCIATES, INC.

Construction Monitoring

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

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

- Conducting a pre-construction review of design and contract documents to identify potential problem areas, and consultation with the owner or client to develop strategies or procedures to avoid anticipated problems.

- Assistance in contractor selection. POTESTA can recommend construction contractors who specialize in the type of work associated with the project and can assist in bid evaluation by reviewing proposed quantities, unit costs, lump sum costs, and any proposed exceptions or qualifiers for the project. POTESTA can conduct pre-bid conferences to help contractors understand project requirements. We can also conduct pre-construction conferences prior to the start of the project to help establish lines of communication, review detailed plans, discuss testing requirements and establish proper reporting procedures.

- POTESTA can provide surveying for construction layout, measurement for payment quantities, and documentation of as-built conditions. Survey results are downloaded to form computer-aided drafting (CAD) drawings allowing the efficient preparation of record drawings and any subsequent evaluations required.

- Construction monitoring can include field testing to document compliance such as field density tests, concrete testing, sampling of materials for laboratory analysis, and documentation of site conditions and work performed on a daily basis or as required.

- Preparation of summary of construction reports, including photographs, videotape documentation, test results, daily construction logs, industrial hygiene monitoring, and other documentation as may be required by the client.

- Preparation of certifications as may be required.

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DANA L. BURNS, P.E.
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

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

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

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.

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.

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.

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

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.

NPDES Industrial/Municipal Permitting

Completed 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

D. Mark Kiser, P.E., L.R.S.

Chief Engineer, Licensed Remediation Specialist

EDUCATION

B.S. Civil Engineering, 1984
West Virginia University

EMPLOYMENT HISTORY

1997-Present	Potesta & Associates, Inc.
1995-1997	Terradon Corporation
1984-1995	GAI Consultants

PROFESSIONAL REGISTRATION

Professional Engineer – West Virginia, South Carolina
Licensed Remediation Specialist – West Virginia

PROFESSIONAL CERTIFICATION

Hazardous Waste Site Operations and Superfund

Worker Protection Training, 40-Hour Training

Supervisory Training and Annual Refreshers

Troxler Nuclear Densometer Certification

SERVICE ON BOARDS AND COMMISSIONS

Commissioner – Sissonville Public Service District

AREAS OF SPECIALIZATION

Environmental assessments, environmental sampling and remedial programs, conceptual and final designs for chemical, utility, and municipal solid waste disposal sites, including liner systems, leachate management systems, stormwater management systems, operational plans and capping/closure systems, abandoned mine land reclamation projects, sludge stabilization and basin/pond closure projects, environmental permitting, hydrologic and hydraulic analyses, quality assurance/quality control monitoring.

PROFESSIONAL EXPERIENCE

Civil/ Site Design

Ridgeline, Inc./Cabela's – Retained by developer and Cabela's to provide civil engineering design services for a new Cabela's store in Charleston, West Virginia.

- ALTA survey
- Subsurface exploration
- Grading plan including balanced cut and fill for the building pad, parking fields, and access roads.
- Stormwater collection system design including curb inlets, catch basins, and culverts.
- Pavement design.
- Utility extension designs including sanitary sewer, potable water, fire service, natural gas, underground electric, underground telephone, and underground cable television.
- Permitting services
- Support for local approvals including approval from Charleston Municipal Planning Commission as a Development of Significant Impact, and building permit to allow construction to begin.
- MM-109 permit to allow for connection of the store's new roadway with the existing public roadway.

City of Charleston – Feasibility study for the replacement of the CSX Ramp in Charleston, West Virginia.

Villages at Coolfont – Project manager for project in Morgan County, West Virginia, which included planning, engineering, and permitting associated with developing a second home community on 1.000 acres near Berkeley Springs, West Virginia. Project included:

- Potable water supply source (wells), treatment plant, storage and distribution system
- 0.44 MGD MBR wastewater treatment plant and sanitary sewer collection system
- Community roadways and storm sewer systems
- Detailed plans for the water and wastewater treatment plants and the distribution allocation system serving the first 124 homes
- Permits were obtained for the water and wastewater plants

Project engineer for development of Suncrest Subdivision in Charleston, West Virginia. Project included engineering and permitting for a new residential subdivision including roadway, underground electric, telephone, cable, water, sanitary sewer and storm water. Sanitary sewer system was designed, constructed, and monitored under the terms of an alternate mainline extension agreement with the Charleston Sanitary Board.

Business and Industrial Development Corporation – Preparation of Utility Extension and Roadway Paving Plans for Southridge Centre - Phase 2 area. Project included preparation of bidding/construction drawings to provide natural gas, water, sanitary sewer, telephone, and cable television serving four commercial lots and a 50-lot proposed subdivision. All utilities were underground. The length of the project was approximately ½ mile. The project also included roadway paving and stormwater drainage.

Development of a conceptual development plan for a mixed use industrial park. The evaluation included developing preliminary alignments for two access roadways including earthwork requirements, drainage, subbase, and paving with preliminary cost estimates. Total length of road was over 5 miles. The evaluation also included preliminary layout of water and sewer service for a proposed 400-acre development.

Plasma Processing Corporation – Preparation of permit to construct and site development plan for a secondary aluminum processing facility startup in Jackson County, West Virginia.

Utility relocation plans required for site development, waterline, and sewer construction projects. Projects included determination of utility locations by records review, utility contacts, and surveying. Designs were prepared including locations, details, and pavement replacement. Design also included obtaining approvals from West Virginia Division of Highways and the owners of the utilities.

Environmental Assessments/Impact Statements

Rhone-Poulenc AG Company – Management and oversight of environmental assessment to identify any liabilities or soil/water degradation for a proposed industrial solid waste landfill. Investigation included drilling, sampling, monitoring well sampling, site reconnaissance, and historic records research to establish baseline soils and groundwater conditions. Results presented in a report.

West Virginia Division of Highways – Environmental Assessment for a 1.25-mile proposed four-lane divided highway in Bridgeport, West Virginia.

West Virginia Division of Highways – Environmental Impact Statement (EIS) for proposed Route 19 upgrade from Summersville, West Virginia to Interstate 79 in Braxton County, West Virginia. Project included evaluation of three alternatives over approximately 25 mile length. Responsibilities included hazardous waste section collection of general data used by other scientists, field reviews, and public meeting participation.

Assessment of environmental and reclamation liabilities associated with over 40 surface mine permits in western Virginia. Evaluation included PCB concerns, reclamation costs, underground and aboveground storage tanks, and acid mine drainage.

Massey Coal Service, Inc. – Assessment of environmental liabilities associated with a large tract of property including over 25 permitted mines and a coal preparation plant. Investigation included a review of permits and requirements, past environmental compliance record, walkover of each site, and development of estimated reclamation costs for each site. Report prepared to document results of the liability assessment.

Completion of environmental assessments and a preliminary design report for two inactive commercial solid waste disposal landfills located in Kanawha and Wyoming County, West Virginia. The environmental assessment included completion of a groundwater user's survey for residents located within ½ mile of each facility, drilling shallow groundwater monitoring wells to monitor flow along the soil/bedrock interface downgradient of each landfill, an extensive geotechnical

soils/rock investigation, assessment of each facilities compliance with the solid waste management rules, and developing recommendations for a preliminary closure plan.

Stormwater

Expert witness for plaintiff damaged as a result of flooding caused by lack of maintenance at a culvert system in Westoreland, Wayne County, West Virginia.

Stormwater drainage plans for site development projects including pre- and post- development discharges, design of sediment control devices, preparation of stormwater general permit application, and consulting for numerous construction projects in West Virginia.

Evaluation of stormwater drainage system (culverts and channels) to alleviate flooding problems for a church in Kanawha County, West Virginia. Project included computer modeling to identify culvert capacities and to identify repair options.

Expert retained to support a property owner damaged as a result of flooding caused by downstream obstructions. Reviewed regulatory agency files, conducted site inspections, evaluated possible remedial measures, and provided support in anticipation of litigation.

Expert witness for plaintiff damaged as a result of flooding from upstream construction. Visited site to observe problem areas, reviewed construction practices/procedures, reviewed regulatory permits, and provided testimony as to the cause of flooding.

Developed stormwater management plans, including calculation of peak runoff rates, storm volumes, and design of stormwater management devices including culverts, ditches, sumps, ponds, principal pipe spillways, and emergency spillways for the following projects:

- Site development projects including commercial, retail, and industrial sites ranging from ¼ acre to more than 100 acres.
- Abandoned mine lands reclamation projects, including landslides, refuse piles, slurry ponds, and subsidence control projects.
- Commercial and industrial waste landfill projects.
- Roadway design projects.
- Other projects involving the disturbance of the ground surface.

Stream/Wetland Delineation, Permitting, and Mitigation

Columbia Gas Transmission Corp – Design of stream stabilization and restoration plan for a section of East Fork of Queer Creek in Hocking County, Ohio. Project included obtaining 401/404 certification and preparation of a detailed construction plan.

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 deign models to determine a stabile 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.

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

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 contractors 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 files 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 a 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 profession 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 a number of 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 collected 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 insitu 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 inplace 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 require 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 as a result 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.

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

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, 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 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
- R.E. Michael HVAC Commercial Building – Monongalia County, WV

- West Run Student Housing (including 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. Stephens 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
- Monongalia General Hospital Expansion and Access Road – Morgantown, WV
- Kasson Elementary/Middle School Repair Project – Kasson, WV
- North Marion Vocational/Technical Center School Repair Project, Marion, County, WV
- Monongalia County Public Office Building – Morgantown, WV
- Numerous Cell Phone Towers in WV, PA, and MD

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 Tuppers Creek Emergency Landslide – Tuppers 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
- Logston Landslide Repair – Wheeling, WV

Served as an 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.

- Larry Rine, et al. v. 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. Morganton 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
- Colaianni Construction, Inc. Claim for Cost Recovery Against Koker Drilling at the Wetzel County Hospital, Wellness Center Addition, Spillman, 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

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 & Tuscorora Creek Bridges – Martinsburg, WV

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
- Churchhill 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, compressive 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
- Potokczny 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, West Virginia
- 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.

TERENCE C. MORAN, P.E.
Senior Engineer

EDUCATION

M.S. Civil Engineering, 1989
West Virginia University

B.S. Civil Engineering, 1987
West Virginia University

EMPLOYMENT HISTORY

1999-Present	Potesta & Associates, Inc.
1989-1999	GAI Consultants
1987-1989	West Virginia University
1985-1987	West Virginia Division of Highways (summers)

PROFESSIONAL REGISTRATION

Professional Engineer – West Virginia, Virginia

PROFESSIONAL CERTIFICATION

Troxler Moisture-Density Gauge
American Red Cross Standard First Aid and CPR
OSHA 40-Hour Hazardous Waste Worker Training

AREAS OF SPECIALIZATION

Water and wastewater engineering and permitting; preparation of studies, design calculations, drawings, technical specifications, and cost estimates; bidding phase services; and construction phase services, including construction administration.

PROFESSIONAL EXPERIENCE

Water Lines, Water Storage Tanks, and Water Treatment Plants

Project Manager/Project Engineer for more than 70 water supply projects involving design and, permitting of water treatment facilities, water line extensions, water storage tanks, booster stations, chlorine boosters, pressure reducing valve stations, service connections and providing fire flow demands. Tasks include client/contract management; mapping development; hydraulic design; geotechnical investigations; preparation of drawings, specifications, and cost estimates; and preparation of Bureau of Public Health, Public Lands Corporation, United States Army Corps of Engineers, West Virginia Division of Highways, and NPDES permit applications.

- Projects funded by federal, state and private funding including small cities block grant, United States Department of Agriculture, Rural Economic Development Agency, Drinking Water Treatment Revolving Fund (DWTRF), West Virginia Infrastructure and Job Development Council, Congressional Supplemental Appropriations (SAP), Abandoned Mine lands, United States Army Corps of Engineers, Governor's office funding, county commissions and private funding.

West Virginia Bureau for Public Health (Region III and Region VI Planning and Redevelopment Councils) – Project Manager for 5 contracts for source water protection:

- Source water reports for 133 public water systems
- Preparation and presentation of state-wide source water awareness symposiums
- Source water assessment and protection plan reports for 68 public water systems
- Engineering study for contingency planning for public water systems

Town of Ceredo – Project Manager for 20,000 feet of water line replacement, water tanks, telemetry, and booster stations.

Boone County Public Service District – Project Manager for 15+ water supply extension projects in Boone County District from 2004 to present. Included were Preliminary

Engineering Reports (PER), and design bidding and construction phase tasks.

Project Manager for Mill Creek Regional Water Supply Extension Project. Design included 34 miles of waterline, booster stations, tanks, and a water treatment plant. Included design of storm water ditches and culverts, and crossings of a railroad. Approval was obtained from CSX Transportation, WVDOH, PLC, USCOE, and West Virginia Bureau for Public Health. Deliverables included drawings, specifications, and cost estimates.

- West Virginia Division of Environmental Protection
- Logan County Public Service District

West Virginal American Water – Project Manager for construction administration/monitoring for the Poca River Road Waterline Extension Project; Cabell County Waterline Extension Project, Contract No. 7; Spite Road Waterline Extension Project; and Fisher Ridge Waterline Extension Project. Work included construction monitoring, preparation of weekly reports, review of contractor submittals, review of contractor invoices, and preparation of record drawings for 100,000+ linear feet of waterline extensions.

City of Philippi – Project Manager 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 waterline extension, and telemetry systems. Drawings, specifications, and a cost estimate were prepared.

West Virginia American Water – Design of main line pressure reducing valve and vault for the Glenwood Avenue Extension of the Cabell County Waterline Extension Project, Contract No. 6. Work included hydraulic sizing and preparation of drawing.

West Virginia American Water – Design, permitting, bidding and contract documents, and construction phase services for residuals handling facility at largest water treatment plant in West Virginia, including 1,000,000 gallon gravity thickener, sludge pumping stations, two belt filter presses, and a plate settler.

West Virginia Department of Environmental Protection – Project Manager/Project Engineer for design of multiple waterline extension in West Virginia. Included was design of six water storage tanks, five booster stations, pressure reducing valves, master meters, and telemetry systems. Work included surveying, subsurface explorations, hydraulic design, preparation of drawings, specifications, cost estimates, and permit applications, and assistance with bidding. Representative projects included:

- 10-Mile-South Putnam Water Supply Extension Project in Lincoln and Putnam Counties;
- 5-Mile-Cline Hollow, Younger Drive, Left Hand Fork of Lens Creek, and Emmons-Grippe Water Supply Extension project in Kanawha County;
- 2.5-Mile Godby Branch Water Supply Extension Project in Logan County;
- 20-Mile Cow Creek-Sarah Ann Water Supply Extension project in Logan County;
- 8-Mile Cassity Fork Water Supply Extension project in Randolph County; and
- 10-Mile Olive/Marshville/Catfish Hollow Water Supply Extension project in Harrison County

Tucker County Development Authority – Project Engineer 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 Davison of Environmental Protection - Project Engineer for preparation of conceptual design and cost estimate for the Mill Creek – Isom Community (Logan County Public Service District) Water Supply Extension Project.

Town of Pineville – Evaluation of 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.

West Virginia Division of Environmental Protection – Project Manager for technical review of the Gauley River Area Waterline Extension proposed by the Gauley River Public Service District and the Heizer/Manilla Creek Waterline Extension proposed by West Virginia American Water. Included hydraulic analysis, evaluation of line size, review of drawings and specifications, and reporting on the evaluation in letter format.

City of Philippi – Relocation of waterlines 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.

Short Line Public Service District/Harrison County Planning Commission – Project Manager for feasibility/rates analysis study for the proposed Reynoldsville, Wallace, and Clarksburg Water Supply Extension Project. Included evaluation of six options at multiple loan/grant funding scenarios.

West Virginia American Water – 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.

West Virginia Division of Environmental Protection – Project Manager/Project Engineer for numerous conceptual waterline designs for 20 unserviced areas (between 1991 and 1996) in coal mining areas in West Virginia. Included hydraulic evaluation, booster station, and water storage tanks sizing, waterline sizing, and estimation of construction cost. Work completed in Barbour, Boone, Brooke, Fayette, Harrison, Lincoln, Logan, Putnam, and Randolph Counties.

West Virginia Division of Environmental Protection – Project Manager for design of booster station upgrade for the Clinton Water Association's Ringgold pump station, including preparation of drawings, specifications, and cost estimate.

West Virginia Department of Energy – Groundwater contamination study for drinking water wells near Cassity, Randolph County, West Virginia, including water supply inventory of over 50 residents, collecting and analyzing well and surface water samples, and researching records to determine the percentage of homes whose water supply had been degraded by acid mine drainage.

Public Utility General – Project Manager for construction administration including preconstruction meetings, shop drawing review, coordination with construction technician team(s), contractor pay application review, public record drawings, and public interface for 15+ water and wastewater utility and/or infrastructure projects including utility line extension and upgrades, construction and modifications of treatment facilities. Clients include municipalities, public service districts, industry, county development authorities and private utilities. Construction included water and sewer lines, booster stations, tanks, lift stations, vacuum sewer stations, treatment basins, dewatering equipment, clarifiers, chemical fee systems, buildings associated with treatment systems, outfall modifications, and diffusers.

Mingo Logan Coal Company – Project Manager for design, building, and permitting services for potable water system at the new Mountain Laurel Mine in Logan County, West Virginia. Project includes booster station, water storage tank, and 10,000 feet of HDPE pipe.

Environmental Assessments/Impact Statements

Environmental site assessments, including record searches and field investigations, for numerous sites in West Virginia, Virginia, Ohio, and North Carolina.

Specialization in large acre tracts, typically ranging from 1,000 acres to 65,000 acres, including coal properties.

- Dominion Resources
- Goldman Associates
- DiMucci Development
- FDIC
- Rhone-Poulenc Ag Company
- GSA
- General Electric
- West Virginia University
- Peabody Coal Company
- Massey Coal Services
- Kanawha County Solid Waste Authority
- Capel, Incorporated
- Plasma Processing Corporation
- Sun Bank South Florida
- Vaughan Railroad Company
- Foodland
- Jackson & Kelly
- Spilman, Thomas and Battle

University of North Carolina – Preparation of an Environmental Assessment showing no significant environmental impact for a proposed 1,400-foot television tower near Chapel Hill, North Carolina.

West Virginia Division of Highways – Project Engineer for completion of hazardous waste portion of environmental assessment for 22 miles of proposed upgrade to US 19, north of Summersville, West Virginia. Included site reconnaissance, interviews, and records

search to identify potential hazardous waste sites along path of proposed upgrade.

NPDES Industrial/Municipal Permitting

Project Manager for the acquisition of NPDES permits for construction activities for multiple civil engineering projects, including sanitary sewer collection systems and water supply extensions.

Project Manager for compilation of storm water sampling plans/kits for NPDES permit applications:

- Columbia Gas Transmission Corporation
- Plasma Processing Corporation

Preparation of Stormwater Pollution Prevention Plans (SWPPs) required by NPDES permits for natural gas compressor stations and secondary aluminum facilities:

- Columbia Gas Transmission Corporation
- Plasma Processing Corporation

Preparation of NPDES permit applications for industrial sites, and regulatory liaison associated with the applications:

- Municipal and industrial waste landfills – West Virginia Solid Waste Management Board, S & S Grading, Inc., and Rhone Poulenc, AG
- Water treatment plant – West Virginia Department of Environmental Protection/Logan County Public Service District, and West Virginia-American Water Company
- Secondary aluminum facility – Plasma Processing Corporation

Design of outfall modifications, including diffuser systems on outfalls. Included were hydraulic sizing and preparation of drawings, specifications and cost estimates. Some projects included bidding and construction phase services.

- City of South Charleston WWTP
- Allegheny Energy Services
- Cytec Industries Inc.
- Consol Energy, Inc.
- Akzo Nobel Chemicals
- Kureha, Inc.
- CNX Gas
- Patriot Coal
- Bayer Crop Science
- Momentive, LLC
- First Energy, Inc.

Served on West Virginia Manufacturer's Association Committee to prepare guidance document for preparing Groundwater Protection Plans (GPP's) for facilities regulated by NPDES permits.

Columbia Gas Transmission Corporation:

- Project Manager for preparation of template Groundwater Protection Plan to cover 50+ natural gas industry facilities in West Virginia. Included was preparation of hard copy and digital format version for use by facility personnel.
- Preparation of comments on draft NPDES permits including negotiations on revising permit conditions for multiple natural gas compressor stations in West Virginia.
- Preparation of report evaluating and recommending disposal options for water at Crawford Compressor Station in Ohio, including subsequent negotiations for direct discharge of water without NPDES permit.
- Project Manager for preparation of State of New York SPDES permit application for the Greenwood Storage Field.
- Preparation of default mixing zone model to allow for proposed increase in iron NPDES limits at the Cobb Compressor Station in Kanawha County, West Virginia.

Roadway Design

WVDEP and Logan County Public Service District – Project Manager for the design and layout of the relocated West Virginia County Route 12 (including approval from WVDOH) as part of the water treatment plant site of the Mill Creek Regional Water Supply Extension in Logan County, West Virginia. The design included roadway alignment (including vertical and horizontal curvature, right-of-way, and horizontal clearance with respect to structures), surface and subsurface drainage (including hydraulic calculations and channel and culvert sizing), fill embankment design, cut slope layout, and specifications for pavement, gravel, guardrail, drop inlets, and drainage structures. In addition, the project included compiling technical specifications including WVDOH standard specifications.

Martinka Coal Company – Project Manager for design of an access road associated with a new 3,700,000-gallon pond at a deep mine in northern West Virginia. Project included subsurface investigation, hydrology calculations, channel and culvert design, cut/fill balance, low water crossing design, embankment design, and selection of road surfacing material. Deliverables included specifications, including references to WVDOH specifications. USCOE and Public Lands Corporation permits were obtained.

S&S Grading, Inc. – Project Manager for design of an access road associated with a closure cap on an old landfill in Harrison County, West Virginia. Project included site grading, hydrology calculations, channel and culvert design, design of subsurface drains under the road, cut/fill balance, embankment design, and selection of road surfacing material. Deliverables included drawings and technical specifications, including references to WVDOH specifications. Roadway quantities were estimated.

Ranger Fuel Corporation – Design of an access road for a new deep mine portal at the Clinton No. 4 Mine in Boone County, West Virginia. Project included site grading, hydrology calculations, channel and culvert design, cut/fill balance, and selection of road surfacing material. Deliverables included drawings and specifications. Regulatory approval was obtained.

JESSICA L. YEAGER
Senior Scientist

EDUCATION

M.S. Biology (Emphasis in Aquatic Ecology and Toxicology
Virginia Polytechnic Institute and State University

B.S. Biology/Chemistry
Fairmont State College

EMPLOYMENT HISTORY

2000-Present	Potesta & Associates, Inc.
1998-2000	Biological Monitoring, Inc.
1995-1998	Virginia Tech
1994-1995	Center for Environmental and Hazardous Materials Studies

PROFESSIONAL CERTIFICATIONS

Certified Hydric Soil Investigator
Certified Wetland Botanist
Certified Wetland Delineator
Certified Wetland Hydrologist

TRAINING/RELEVANT COURSE WORK

River Morphology and Applications, Wildland Hydrology
Applied Fluvial Geomorphology, Wildland Hydrology
Methods for Stream Assessment and Analysis, WVU
Introduction to Natural Stream Channel Design, WVU
Advanced Stream Design, WVU
Fluvial Geomorphology, WVU

PROFESSIONAL AFFILIATIONS

Society of Freshwater Scientist
Society of Environmental Toxicology and Chemistry

AREAS OF SPECIALIZATION

Clean Water Act (CWA) permitting, compliance, including water pollution control permitting and regulatory compliance, stream and wetland delineation, and permitting (including mitigation), state water quality regulations, threatened and endangered species compliance, cultural and historic resource coordination, development of large scale environmental risk assessments, environmental assessments, biological assessments, environmental impact studies and other National Environmental Policy Act (NEPA) documents (noise, cumulative impacts, aesthetics), development of biological studies, toxicity evaluations.

PROFESSIONAL EXPERIENCE

Stream/Wetland Delineation, Permitting, and Mitigation

Served as project manager and senior scientist for multiple CWA permitting tasks covering Section 401, 402, and 404 compliance

Prepared permit packages for stream and wetland impacts for United States Army Corps of Engineers individual and general Department of the Army authorizations, State (401) Water Quality Certification, and Public Lands Corporations.

Supervised and assisted in the preparation of mitigation plans and associated restoration plans, as well as environmental information documents for large scale surface disturbances.
Prepared large adaptive management plans that are compliant with Department of the Interior (DOI) recommendations.

Supervised and prepared projects that determine stream status (perennial, intermittent, or ephemeral) utilizing benthic and stream channel indicators (wetland and stream delineations) in West Virginia, Kentucky, Virginia, and Maryland. Projects have included the determination of jurisdictional streams and wetlands in atypical field conditions, as well as after-the-fact

stream/wetland impacts utilizing site specific data as well as interpretation of historical data using ArcGIS.

Acted as an agent for applicants during negotiations with agency personnel. Typically issues addressed are associated with impact determination and NEPA compliance (cultural resources, threatened and endangered species, land use, cumulative impacts, and aesthetics.)

Familiar with most Federal protocols utilized for the assessment of impacts to "waters of the U.S." Prepared the banking documents (prospectus, banking instrument, etc.) for the first mitigation banking program for stream and wetland credits in West Virginia.

Supervise, evaluate and report mitigation success using applicable performance standards for CWA Section 404 permitting.

NPDES Industrial/Municipal Permitting

Worked as part of a permitting team that prepared new, modified, and renewed (reissued) National Permit Discharge Elimination System (NPDES) permits for various clients in the energy and commercial sectors. Specific areas include water monitoring and narrative criteria applications, toxicity (standard bioassays, as well toxic identification studies), aquatic ecosystem protection, biological studies, watershed hydrology, water quality, groundwater and surface water inventories, long-term flow studies, site specific water quality criteria and or variances, mixing zones, database management and adaptive management plans.

Surface Water Sampling

Supervised multiple water quality monitoring programs. Projects have included oversight and management of sampling teams for pre-construction baseline, routine and special study water quality monitoring projects including non-traditional monitoring techniques such as sediment respiration. Many of the projects have included a database management and compliance component.

Risk Assessment

Completed large scale risk assessment in watersheds in Kentucky, West Virginia, and Virginia for associated with impacts to waters. Assessments included the use of biological monitoring (fish and benthic macroinvertebrates (including mussels)), acute and chronic toxicity testing, sediment toxicity testing, juvenile mussel toxicity testing, entrainment studies, water quality monitoring, water quality modeling, and specialized sediment sampling which included both physical and chemical characterizations. These projects have required large scale data integration, database management with an ArcGIS component.

Threatened/Endangered Species

Completed biological assessments for mussel species in the Kanawha and Gauley Rivers, as well as a document similar to a biological assessment for the Big Sandy River watershed. Completed biological assessments for bat species in West Virginia for various clients. Prepared appropriate documentation for Section 7 consultations with the United States Fish and Wildlife Service for various regulated entities.

Environmental Assessments/Impact Statements

Prepared and submitted environmental assessments for federal regulatory agencies. Reviewed and commented on Draft Environmental Impact Statements. Completed supplemental data reports for draft environmental impact statements. Completed assessments for federal agencies to determine the need for supplemental environmental documents.

Regulatory and Litigation Support

Provided testimony as both a factual witness and expert witness in federal court and before the West Virginia Environmental Quality Board. Testimony included site conditions, evaluation of reasonable potential, water quality issues, mitigation, and stream structure and function. Negotiated with state and federal agencies regarding fines for non-compliance. This includes completing large scale after-the-fact delineations and associated reporting for Section 308 and 309 Orders, negotiating mitigation, and evaluating and assessing NPDES compliance issues. Compliance issues include discharge monitoring reports, non-compliance notices, toxicity, and narrative guidance concerns.

Additional litigation work has included work performed for meeting specialized permitting requirements, like those for the Public Service Commission. This work has included testimony regarding studies for wind energy

development and its impact on birds and threatened and endangered species.

Biological Studies and Sampling

Responsible for managing and reporting biological surveys using State and federal protocols for permitting and compliance. Responsible for the development, managing, and reporting of special studies including functional assessment studies, algal studies, vegetative studies, wetland macroinvertebrate studies, avian studies, bat studies, benthic macroinvertebrate studies, mussel surveys, fish surveys and specialized trout surveys. Responsible for managing and reporting biological toxicity evaluations using standard testing species, as well as specialized studies like those completed using juvenile mussels.

Completed an evaluation of the physical, chemical, and biological effects of acid mine drainage from abandoned mine lands in Virginia. Work included bioassays, biological monitoring, chemical monitoring, physical habitat evaluations, and functional assessments of the biological communities including algal community structure. Prepared documents for the use of acid mine drainage remediation for mitigation purposes.

Benthics

Completed benthic sampling for 18+ years. Capable of identifying most benthic macroinvertebrates at the genus level. Completed aquatic entomology coursework under Dr. R. Voschell at Virginia Tech.

The State of West Virginia

STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS

To all to whom these presents shall come, Greeting

Know Ye That The State Board of Registration for Professional Engineers, of the State of West Virginia, reposing special confidence in the Intelligence, Integrity and Discretion of

Dana L. Burns

DOES, IN PURSUANCE OF AUTHORITY VESTED IN IT by law, hereby certify that he, having submitted satisfactory evidence of his ability and experience, is a

REGISTERED PROFESSIONAL ENGINEER

Registration Number [redacted]

To Hold and use such title in the practice of his profession, subject to the conditions prescribed by law.

Given under the hand and the Seal of the Board, at the Capitol in the City of Charleston, this 17th day of Sept. in the year of our Lord One Thousand Nine Hundred and Eighty-Five and of the State the One Hundred Twenty-Second

STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS

By

[illegible] Secretary

Robert B. Scott President

Frank L Faddy [illegible] Kenneth H. Means

State of West Virginia

STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS

To all to whom these presents shall come, Greeting

Know Ye That The State Board of Registration for Professional Engineers, of the State of West Virginia, reposing special confidence in the Intelligence, Integrity and Discretion of

David M. Kiser

DOES, IN PURSUANCE OF AUTHORITY VESTED IN IT by law, hereby certify that he having submitted satisfactory evidence of his ability and experience, is a

REGISTERED PROFESSIONAL ENGINEER

Registration Number [redacted]

To Hold and use such title in the practice of his profession, subject to the conditions prescribed by law.

Given under the hand and the Seal of the Board at the Capitol in the City of Charleston this 15th day of March in the year of our Lord One Thousand Nine Hundred and Ninety and of the State the One Hundred Twenty-sixth.

STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS

By

Secretary Kenneth H. Means

President Robert B. Scott

The State of West Virginia

STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS

To all to whom these presents shall come, Greeting

Know Ye That The State Board of Registration for Professional Engineers of the State of West Virginia, reposing special confidence in the Intelligence, Integrity and Discretion of

David B. Sharp

Doth, in Pursuance of Authority Vested in it by law hereby certify that he having submitted satisfactory evidence of his ability and experience is a

REGISTERED PROFESSIONAL ENGINEER

Registration Number [redacted]

To hold and use such title in the practice of his profession, subject to the conditions prescribed by law

Given under the hand and the Seal of the Board at the Capitol in the City of Charleston this 25th day of July in the year of our Lord One Thousand Nine Hundred and Ninety-nine and of the State the One Hundred Thirty-sixth

STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS

The State of West Virginia

STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS

To all to whom these presents shall come, Greeting

Know Ye That The State Board of Registration for Professional Engineers, of the State of West Virginia, reposing special confidence in the Intelligence, Integrity, and Discretion, of

Terence C. Moran

DOES, IN PURSUANCE OF AUTHORITY VESTED IN IT by law, hereby certify that he, having submitted satisfactory evidence of his ability and experience, is a

REGISTERED PROFESSIONAL ENGINEER

Registration Number [redacted]

To Hold and use such title in the practice of his profession, subject to the conditions prescribed by law.

Given under the hand and the Seal of the Board, at the Capitol in the City of Charleston, this 13th day of Feb. in the year of our Lord One Thousand Nine Hundred and Ninety Six and of the State the One Hundred Thirty-Second

STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS

Secretary

President

Kenneth H. Means

Robert B. Scott

Certificate of Training

Wetland Botanist

This certifies that

Jessica Yeager

is a Wetland Botanist and has participated in 40 hours of instruction.

Certification Date: January 20, 2015

Certified Wetland Botanist ID# [redacted]
Expires January 20, 2020

SwampSchool,LLC
RALEIGH, NC 27603
1-877-479-2673
www.SwampSchool.org

MARC SEELINGER
00001236

SIGNATURE OF AUTHORIZATION

Professional Wetland Scientist™
Accredited Training Provider

Certificate of Training

Wetland Delineation & Regional Supplement Training

This certifies that

Jessica Yeager

has participated in 36 hours of classroom & field instruction.
PWS Approved 2.4 Semester Hours

Date: November 26, 2014

SwampSchool,LLC
RALEIGH, NC 27603
1-877-479-2673
www.SwampSchool.org

MARC SEELINGER
00001236

SIGNATURE OF AUTHORIZATION

Professional Wetland Scientist
Accredited Training Provider


The Swamp School
Jessica Yeager
CWB# [redacted]
Valid Until
January 20, 2020
Certified
Wetland Botanist

Project Abstract

WATERFRONT MARINA
Paradigm Architecture

Morgantown, West Virginia

Potesta & Associates, Inc. (POTESTA) was retained by Paradigm Architecture to provide geotechnical engineering associated with the proposed Waterfront Marina to be located in Morgantown.

POTESTA's scope of services included a subsurface exploration, coordination of laboratory testing, and preparation of a geotechnical report. The drilling activities involved drilling adjacent to a rail trail managed by the Morgantown Board of Parks and Recreation, as well as borings located within the Monongahela River. POTESTA subcontracted drilling to Pennsylvania Drilling which drilled three (3) borings from a barge along with several locations along the river bank and adjacent to the trail..

Foundation recommendations were provided for the proposed buildings, as well as anchors for the proposed docks. Recommendations were also provided for site work including earthwork and infiltration for possible storm water management devices.

POTESTA & ASSOCIATES, INC.
Charleston, WV • Morgantown, WV • Winchester, VA
(304) 342-1400/www.potesta.com

GRANVILLE BOAT RAMP
MONONGAHELA RIVER

Town of Granville
Monongalia County, West Virginia

Potesta & Associates, Inc. (POTESTA) was retained by the Town of Granville to provide civil engineering design services for a new public boat ramp and river access area in Granville, West Virginia. The single lane, 100-foot by 20-foot, ArmorFlex® paving boat ramp also includes a paved access roadway and turnaround area, providing public access to the Monongahela River off of Main Street (Route 100) in downtown Granville. The project also included a non-potable dry hydrant assembly for filling fire trucks and municipal equipment.

Monongahela River – Project Site Before Construction

- **Surveying** – Topographic mapping of the project area.
- **Coordination and Consulting** with Various Groups/Agencies – Working with the City of Morgantown Floodplain Coordinator, coordination with landowner(s), the Army Corps of Engineers, and contractors to facilitate communication and compliance during the design process. Also, attendance of pre-bid and pre-construction meetings to assist the client in bid review and decision making.
- **Civil Site Design and Construction Documents** – Entrance/roadway design and grading plan including cut/fill for the construction site, roadway and boat ramp profile, and construction documents.
  - Construction Detail Drawings – Site plan and profile; ArmorFlex® paving section and profile; pavement plan and detail; dry-hydrant plan, profile, and pipe trench detail; erosion and sediment control details.
  - Engineer's Cost Estimate – Probable estimate of construction costs, including line items and estimated unit prices, and miscellaneous costs to estimate the total cost of project completion.
  - Technical Specifications – For project work/materials such as asphalt pavement, ArmorFlex® paving, dry hydrant assembly, earthwork, drainage, and expectations of the contractor.
  - Bid Documents – Preparation of bid tables, contract documents, and review of contractors' bids.
- **Construction Observation/Administration** – Various services during the construction phase including shop drawing review, schedule coordination between client and contractor(s), review of pay applications, and on-site inspection and materials testing (compaction, concrete, etc.).

POTESTA & ASSOCIATES, INC.
Charleston, WV • Morgantown, WV • Winchester, VA • Cambridge, OH
(304) 342-1400 • www.potesta.com

DAM INSPECTIONS FOR COOLFONT (LAKE SIRI) DAM

Coolfont Resort
Berkeley Springs, Morgan County, West Virginia

Potesta & Associates, Inc. (POTESTA) was retained by Coolfont Resort to perform a dam inspection for the Coolfont (Lake Siri) Dam near Berkeley Springs, Morgan County, West Virginia. Lake Siri is a large recreational lake at the Coolfont Resort. The Lake Siri Dam is an earth fill embankment that has dam height of approximately 23 feet and has a maximum capacity of 301 acre-feet that impounds Sir John Run, a tributary of the Potomac River.

POTESTA's services included:

- Submitted Freedom of Information Act (FOIA) request to the West Virginia Department of Environmental Protection Dam Safety Section (Dam Safety), and performed file reviews to obtain copies of past inspection reports, drawings and other pertinent information available in order to obtain a better understanding of the dam.
- Met with client's representatives familiar with the dam, to obtain additional information pertaining to the operation, maintenance, and history of the dam.
- Visited the site to conduct visual observation of the Dam's crest, upstream/downstream embankment slopes, abutment areas, and principal and emergency spillway structures to identify deficiencies and potential hazards.

POTESTA then prepared and submitted dam inspection reports in accordance with the Dam Safety Regulations. The report included visual observations made during the site visit, photographs, our opinions and conclusions relative to the condition of the dam, recommendations for correcting deficiencies and suggestions for future maintenance of the dam, and an engineer's certification statement.

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WEST FORK RIVER WATERSHED SURVEY
Client Confidential

West Fork River - Lewis, Harrison and Marion Counties, West Virginia

Potesta & Associates, Inc. was retained to assess the water quality and determine potential sources of impairment in a 73-mile reach of the West Fork River. A survey of the West Fork River watershed was conducted to determine potential sources of impairment to the water quality and biota in the river. The basin wide study involved water quality and benthic macroinvertebrate surveys throughout the watershed, as well as compilation and review of historical water quality and flow data. A compilation of existing data from the US Army Corps of Engineers and the USGS gaging stations on the river show a significant correlation between flow and some water chemistry parameters which may result in impairment of the in-stream biological community. The historical data which has been compiled will be compared with ongoing monitoring in the watershed to establish water quality trends in the West Fork River.

This project illustrates POTESTA's ability to develop and implement watershed scale monitoring programs. The ongoing monitoring in the watershed further illustrates our ability to develop and implement monitoring programs which are acceptable to the regulatory agencies.

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PIPELINE RIVER CROSSINGS ON THE ELK AND KANAWHA RIVERS

West Virginia American Water
Kanawha County, West Virginia

Potesta & Associates, Inc. (POTESTA) was retained by West Virginia American Water (WVAW) to provide consulting services related to five pipeline river crossings on the Elk and Kanawha Rivers. Three of the projects were to replace HDPE line with ductile iron pipe in the Elk River and two were new ductile iron pipe construction crossings in the Great Kanawha River. WVAW had a mussel consultant contact the United States Fish and Wildlife Service (USFWS) for permits to survey the proposed stream crossings for threatened and endangered species of freshwater mussels. The consultant reported that the USFWS would not consider issuing permits to survey mussel populations in the proposed crossing areas. WVAW wished to pursue the permitting of the crossings as they were vital to the service structure in the Elk and Kanawha River area.

POTESTA set separate meetings with the United States Army Corps of Engineers (USACE) and the USFWS to gain further understanding of the USFWS's objections to granting approval for mussel surveys and to determine the USACE's position on the crossing projects. POTESTA developed a permitting strategy designed to pursue USACE permits for the river crossing work.

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PINEY CREEK DAM

Raleigh County Recreation Authority

Lake Fitzpatrick Park - Surveyor, West Virginia

Potesta & Associates, Inc. (POTESTA) was retained by the Raleigh County Recreation Authority to design and oversee construction for a new dam on Piney Creek adjacent to Lake Fitzpatrick Park in Raleigh County, West Virginia. A previously existing dam on the creek had been washed out by flooding. The purpose of the dam on the creek was to impound water to an elevation which would allow flow from the creek to pass through an inlet pipe which fed nearby Lake Fitzpatrick. Lake Fitzpatrick has a very small water shed and therefore has difficulty maintaining normal pool elevation. When the original dam on Piney Creek washed out, the pool level subsequently dropped in Lake Fitzpatrick. The following is a list of services provided:

- Development of a preliminary evaluation report which provided several alternatives for methods of providing inflow to Lake Fitzpatrick.
- Design of a rock fill dam with a crest length of approximately 40 feet and an average height of 10 feet. The design included generating construction drawings and specifications.
- Preparation of permits including a Corps of Engineers 404 Nationwide permit and a Public Lands Corporation Stream Activity Permit.
- Preparation of bidding documents, including bid quantity list, conducted pre-bid meeting, and assisted the Raleigh County Development Authority with award of the successful bid.
- Contract administration and Construction Monitoring services.
- Quarterly inspections and reports required by WVDEP (also for both facilities).

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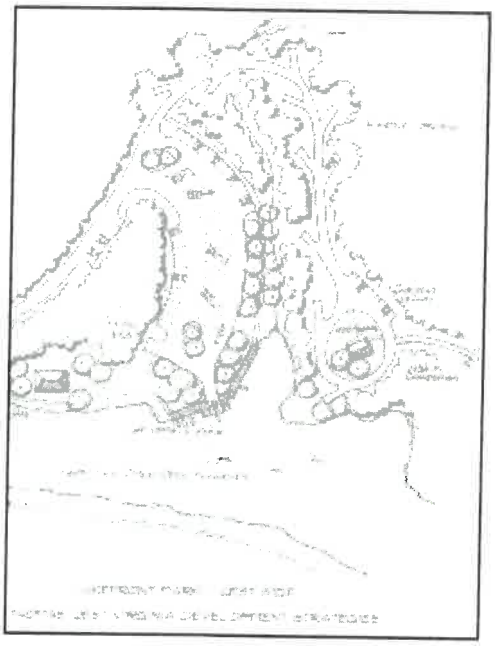
Project Abstract

CITY OF THOMAS DEVELOPMENT PLAN

Thomas Point Associates

Thomas, West Virginia

The City of Thomas had a planning study completed in 1998 identifying strategies for the revitalization of the city. Thomas is one of the gateway communities for tourists coming into the Canaan Valley/Blackwater Falls area. It has a significant industrial heritage, having been the second largest producer of coke in the state for most of the early part of the twentieth century.



A portion of the coke making area is still visible in the city and the U. S. Forest Service applied for and received national historic designation for this industrial complex which extends throughout the Blackwater Canyon. This development plan, of which Potesta & Associates, Inc. (POTESTA) is a planning team member, takes several of the key strategies and further develops the plan into schematic design.

These strategies include developing a trailhead plan in Thomas for the Highland Scenic Trail running from Elkins to Mount Storm, West Virginia, and a schematic design for possible recreation considerations on land owned on the west side of the North Fork of the Blackwater River.

These design considerations will be evaluated with the preferred routing of Corridor H (U.S. Route 33) through the area.

A view of the City of Thomas from across the river

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MIXING ZONE/DIFFUSER

Bayer CropScience, LLC
Institute, West Virginia

Potesta & Associates, Inc. (POTESTA) was retained by Bayer CropScience, LLC (Bayer) to provide regulatory, design, bidding, and construction phase services for implementation of a mixing zone at their Institute, West Virginia facility's Wastewater Treatment Unit (WWTU). Included in POTESTA's scope of services was:

- Completing a mussel survey.
- Completing a bathymetric survey, as well as developing topographic mapping along the riverbank.
- Inserting a diver to observe river bottom.
- Completing a sub-bottom profile of areas below the river bottom.
- Preparing permit applications to receive regulatory approvals from the United States Army Corps of Engineers (USACE); West Virginia Department of Environmental Protection (WVDEP), including preparation of a mixing zone study; West Virginia Division of Natural Resources (WVDNR); and Public Land Corporation (PLC).
- Designing an effluent line/diffuser that extended approximately 100 feet into the river and included a 32-inch diameter HDPE diffuser barrel with twelve 6-inch ports with fanned "duckbill" backflow prevention valves. Also included in the design were approximately 500 feet of effluent line and three manholes to extend the outfall upriver, a flow meter vault, a degassing manhole, a defoamer conduit with secondary containment, an overflow manhole/slide gate with concrete overflow channel, as well as concrete anchoring to prevent flotation of the diffuser.
- Attending weekly construction meetings, reviewing shop drawings, and preparing record drawings.

Degassing Overflow Manhole during Construction, with Kanawha River in Background

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MEASLE FORK REFUSE

West Virginia Department of Environmental Protection
Office of Abandoned Mine Lands
Wyoming County, West Virginia

Potesta & Associates, Inc. (POTESTA) was retained by the West Virginia Department of Environmental Protection's Office of Abandoned Mine Lands (WVDEP) to regrade/cover all refuse material with at least 12 inches of topsoil, remove all debris from the site, and to stabilize Measle Fork and the stream bank due to refuse encroaching the water way.

The Measle Fork Refuse area was a 25-acre site with 7 acres of steep slopes with exposed refuse to be regraded and covered. Approximately 2,600 feet of Measle Fork were stabilized to protect the stream and prevent further erosion of the stream bank and potential for refuse to enter the stream. The regrading and stream bank protection included three terraced planting areas. The site was also provided with 4,500 feet of drainage channels.

POTESTA prepared drawings, technical specifications, contractor's bid forms, engineer's construction cost estimate, and calculations brief for the project. POTESTA also attended the pre-bid and pre-construction conferences to assist WVDEP with the project.

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CABELA'S RETAIL STORE

Cabela's
Charleston, West Virginia

Potesta & Associates, Inc. (POTESTA) was retained by both the land developer and Cabela's to provide civil engineering design services for the Cabela's store in Charleston, West Virginia. The store is situated on a 10-acre parcel and includes an 80,000 square foot building, over 400 parking spaces, 3 entrances from public and private roadways, a plaza area across the front of the store, RV park area with sewage dump station, dog kennel area, and landscaping.

Specific services provided by POTESTA included:

- ALTA survey used for the lease agreement and subsequent design work.
- Subsurface exploration including sample collection and testing, geotechnical evaluation, and foundation recommendations.
- Grading plan including balanced cut and fill for the building pad, parking fields, and access roads.
- Stormwater collection system design including curb inlets, catch basins, and culverts.
- Pavement design.
- Utility extension designs including sanitary sewer, potable water, fire service, natural gas, underground electric, underground telephone, and underground cable television.
- Permitting services including coverage of site development under the state's general construction stormwater permit.
- Support for local approvals including approval from Charleston Municipal Planning Commission as a Development of Significant Impact, and building permit to allow construction to begin.
- MM-109 permit to allow for connection of the store's new roadway with the existing public roadway.

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PARKING LOT RENOVATION

St. John University Catholic Church
Morgantown, West Virginia

Potesta & Associates, Inc. (POTESTA) was retained to provide civil engineering services relative to a parking lot renovation for the St. John University Parish located in Morgantown, West Virginia. The existing parking lot consisted of a gravel area left by the demolition of a previous structure. One of the exterior walls remained, as well as a cut stone wall needed while the building was on-site.

POTESTA met with representatives of the church to determine a conceptual plan, with minor revisions being made during the review process. Upon preliminary approval, POTESTA prepared Construction Drawings for the site, applied for a MM-109 Encroachment Permit through the West Virginia Division of Highways District 4, a Stormwater Permit through the Morgantown Utility Board (MUB), and permitting through the City of Morgantown.

In addition, once permitting was granted, approval through the Wheeling-Charleston Catholic Diocese was obtained prior to bidding of the work.

POTESTA's civil/site responsibilities, in addition to the abovementioned permitting, included:

- Existing site topographic survey.
- Layout of roadway and parking.
- Layout of three site retaining walls and review of design.
- Utility relocation of existing MUB sanitary storm water system including water quality aspects.
- Abandonment of one site entrance and relation of main access.
- Conversion of additional entrance to a one-way exit.
- Signage and traffic flow plan.
- Erosion and sediment control through MUB/City of Morgantown.

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