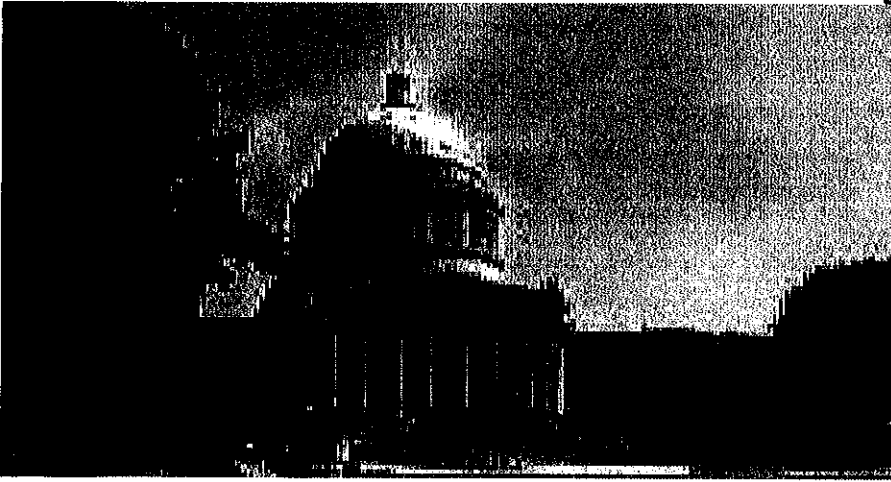


DESIGN OF ADA RAMP TO LEVEE/BOAT DOCK GSD116408

September 15, 2010



Prepared For:

Ms. Krista Ferrell
Purchasing Division
2019 Washington Street East
Charleston, West Virginia 25305-0130
Ph: 304-558-4115

Prepared By:

Triad Engineering Inc.
4980 Teays Valley Road
Scott Depot, West Virginia 25560
Ph: 304.755.0721
Fx: 304.755.1880

RECEIVED

2010 SEP 15 A 10: 31

PURCHASING DIVISION
STATE OF WV

TRIAD
TRIAD ENGINEERING, INC.

◆ TRIAD Listens, Designs & Delivers™

www.triadeng.com



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

Request for Quotation

RFQ NUMBER
 GSD116408

PAGE
 1

ADDRESS CORRESPONDENCE TO ATTENTION OF
 KRISTA FERRELL
 304-558-2596

*709044920 304-342-0300

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TRIAD ENGINEERING, INC.
 4980 TEAYS VALLEY ROAD
 SCOTT DEPOT, WV 25560

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DEPARTMENT OF ADMINISTRATION
 GENERAL SERVICES DIVISION
 BUILDING 1
 1900 KANAWHA BOULEVARD, EAST
 CHARLESTON, WV
 25305 304-558-3517

| DATE PRINTED | TERMS OF SALE | SHIP VIA | F.O.B. | FREIGHT TERMS |
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| 08/19/2010 | | | | |

BID OPENING DATE: 09/15/2010 BID OPENING TIME 01:30PM

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| <p>A&E SERVICES: DESIGN OF ADA RAMP TO LEVEE/BOAT DOCK</p> <p>EXPRESSION OF INTEREST (EOI)</p> <p>THE WEST VIRGINIA STATE PURCHASING DIVISION FOR THE AGENCY, THE WEST VIRGINIA DIVISION OF GENERAL SERVICES, IS SOLICITING EXPRESSIONS OF INTEREST FOR ARCHITECTURAL AND ENGINEERING SERVICES FOR THE DESIGN OF AN ADA COMPLIANT ACCESS RAMP TO THE KANAWHA RIVER LEVEE AND FUTURE FLOATING BOAT DOCK LOCATED ON KANAWHA BOULEVARD ACROSS FROM THE GOVERNOR'S MANSION IN CHARLESTON, WEST VIRGINIA PER THE ATTACHED SPECIFICATIONS.</p> <p>TECHNICAL QUESTIONS CONCERNING THIS SOLICITATION MUST BE SUBMITTED IN WRITING TO KRISTA FERRELL IN THE WEST VIRGINIA STATE PURCHASING DIVISION VIA MAIL AT THE ADDRESS SHOWN IN THE BODY OF THIS EOI, VIA FAX AT 304-558-4115 OR VIA EMAIL AT KRISTA.S.FERRELL@WV.GOV. DEADLINE FOR ALL TECHNICAL QUESTIONS IS 08/31/2010 AT THE CLOSE OF BUSINESS. ANY TECHNICAL QUESTIONS RECEIVED WILL BE ANSWERED BY FORMAL ADDENDUM TO BE ISSUED BY THE PURCHASING DIVISION AFTER THE DEADLINE HAS LAPSED.</p> <p>EXHIBIT 10</p> <p>REQUISITION NO.:</p> <p>ADDENDUM ACKNOWLEDGEMENT</p> | | | | | | |

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE TELEPHONE DATE 9/15/10

TITLE FEIN ADDRESS CHANGES TO BE NOTED ABOVE
 MARKETING COORDINATOR

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



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*709044920 304-342-0300

VENDOR

3 TRIAD ENGINEERING, INC.
 4980 TEAYS VALLEY ROAD
 SCOTT DEPOT, WV 25560

SHIP TO

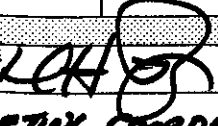
DEPARTMENT OF ADMINISTRATION
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 1900 KANAWHA BOULEVARD, EAST
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 25305 304-558-3517

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| <p>NOTE: THIS ADDENDUM ACKNOWLEDGEMENT SHOULD BE SUBMITTED WITH THE EOI.</p> <p>REV. 09/21/2009 BANKRUPTCY: IN THE EVENT THE VENDOR/CONTRACTOR FILES FOR BANKRUPTCY PROTECTION, THE STATE MAY DEEM THE CONTRACT NULL AND VOID, AND TERMINATE SUCH CONTRACT WITHOUT FURTHER ORDER.</p> <p style="text-align: center;">NOTICE</p> <p>A SIGNED EOI MUST BE SUBMITTED TO:</p> <p style="padding-left: 40px;">DEPARTMENT OF ADMINISTRATION PURCHASING DIVISION BUILDING 15 2019 WASHINGTON STREET, EAST CHARLESTON, WV 25305-0130</p> <p>THE EOI SHOULD CONTAIN THIS INFORMATION ON THE FACE OF THE ENVELOPE OR THE EOI MAY NOT BE CONSIDERED:</p> <p>SEALED EOI</p> <p>BUYER: KRISTA FERRELL-FILE 21</p> <p>EOI. NO.: GSD116408</p> <p>EOI OPENING DATE: 09/15/2010</p> | | | | | | |

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*709044920 304-342-0300

VENDOR

TRIAD ENGINEERING, INC.
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I HEREBY ACKNOWLEDGE RECEIPT OF THE FOLLOWING CHECKED ADDENDUM(S) AND HAVE MADE THE NECESSARY REVISIONS TO MY PROPOSAL, PLANS AND/OR SPECIFICATION, ETC.

ADDENDUM NO. S:

- NO. 1 ✓
- NO. 2
- NO. 3
- NO. 4
- NO. 5

I UNDERSTAND THAT FAILURE TO CONFIRM THE RECEIPT OF TH ADDENDUM(S) MAY BE CAUSE FOR REJECTION OF EOIS.

VENDOR MUST CLEARLY 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.

[Handwritten Signature]

 SIGNATURE

TRIAD ENGINEERING, INC
 COMPANY

9/15/10

 DATE

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE *[Handwritten Signature]* TELEPHONE DATE 9/15/10

TITLE **MARQUETTE CORONADO** FEIN ADDRESS CHANGES TO BE NOTED ABOVE



State of West Virginia
 Department of Administration
 Purchasing Division
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| RFQ NUMBER |
| GSD116408 |

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| ADDRESS CORRESPONDENCE TO ATTENTION OF |
| KRISTA FERRELL |
| 804-558-2596 |

*709044920 304-342-0300

BIDDING

TRIAD ENGINEERING, INC.
 4980 TEAYS VALLEY ROAD
 SCOTT DEPOT, WV 25560

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| EOI OPENING TIME: 1:30 PM PLEASE PROVIDE A FAX NUMBER IN CASE IT IS NECESSARY TO CONTACT YOU REGARDING YOUR EOI: ----- CONTACT PERSON (PLEASE PRINT CLEARLY): ----- ***** THIS IS THE END OF RFQ GSD116408 ***** TOTAL: | | | | | | |

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

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| SIGNATURE | TELEPHONE | DATE 9/15/10 |
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WHEN RESPONDING TO RFQ, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'

STATE OF WEST VIRGINIA
Purchasing Division

PURCHASING AFFIDAVIT

West Virginia Code §5A-3-10a states: 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 the debt owed is an amount greater than one thousand dollars in the aggregate.

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.

"Debtor" means any individual, corporation, partnership, association, limited liability company or any other form or business association owing a debt to the state or any of its political subdivisions. "Political subdivision" means any county commission; municipality; county board of education; any instrumentality established by a county or municipality; any separate corporation or instrumentality established by one or more counties or municipalities, as permitted by law; or any public body charged by law with the performance of a government function or whose jurisdiction is coextensive with one or more counties or municipalities. "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.

EXCEPTION: The prohibition of this section does not apply where a vendor has contested any tax administered pursuant to chapter eleven of this 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.

Under penalty of law for false swearing (*West Virginia Code* §61-5-3), it is hereby certified that the vendor affirms and acknowledges the information in this affidavit and is in compliance with the requirements as stated.

WITNESS THE FOLLOWING SIGNATURE

Vendor's Name: TRIDD ENGINEERING, INC

Authorized Signature: [Signature] Date: 9/15/10

State of West Virginia

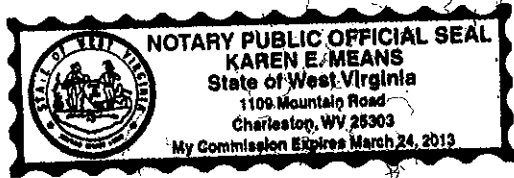
County of Putnam, to-wit: Dane H. Ryan

Taken, subscribed, and sworn to before me this 15th day of September, 2010.

My Commission expires March 24, 2013.

AFFIX SEAL HERE

NOTARY PUBLIC [Signature: Karen E. Means]



SCOPE OF WORK

PROJECT UNDERSTANDING

Based on the request for Expression of Interest, Triad Engineering understands the project involves the following:

- Preparation of a preliminary design
- Preparation of detailed project design
- Coordination with all applicable permitting agencies
- Preparation of construction plans, specifications, bidding/contracting documents
- Assistance during bidding including participation in the evaluation of bids received
- Construction administration services
- Construction inspection services as required to insure compliance with plans and specifications

The purpose of the project is to construct a new ADA compliant pedestrian ramp to a new boat dock. The ramp will be located near the existing levee wall south of the Main Capitol Building (across Kanawha Boulevard). The design will connect the Kanawha Boulevard sidewalk to the mid-level levee walk and then continue to the prospective location of the boat dock being designed and constructed by others

SCOPE OF WORK

PROJECT APPROACH

The following is a breakdown of the project into phases and tasks:

PHASE 1 - INITIAL INVESTIGATION AND "UP FRONT SERVICES"

Task 1 - Initial Project Planning Meeting

At the onset of the project, we will meet jointly with the City of Charleston project personnel and any other key development / project members. This meeting will be for the purpose of reviewing basic project parameters, goals and approval procedures. During this meeting, several items will be discussed including but not limited to project contact names and information, design team review and approval process, general project concept, and desired time frames for each project task.

Task 2 – Survey Field Edit

TRIAD will determine the existence of necessary mapping in the project area and will develop only what is necessary if none exists. This involves identifying existing utility locations and ground surface elevations along the sidewalk route. Should suitable mapping become available, during this initial phase we will perform a "field edit." This would include walking/driving the site and verifying that important existing topographic features have been accurately depicted on the mapping.

Task 3 - Utility Research and Meetings

During the initial investigation process, our representatives will meet with the local utility providers for telephone, electric, cable, fiber optic, water, sewer, and gas. The meetings will be for the purpose of obtaining record information on existing facilities and connection points, as well as any lines they may have which will be of concern during construction. If it is not already included, this information will be added to any existing mapping and to any mapping Triad develops.

SCOPE OF WORK

PROJECT APPROACH

Task 4 – Identification of Alternatives

During this initial phase, we will study the project areas and present feasible alternatives along with attendant approximate construction costs and environmental considerations. Triad's project manager will be available to explain how the project will affect adjacent properties. We understand, however, that the final selection is subject to the Clients' approval.

PHASE 2 - PRELIMINARY DESIGN AND PERMITTING SERVICES

Task 1 - Site Planning (Preliminary Site Plans)

Upon completion of the initial phase, Triad will create preliminary site plans to meet project requirements in accordance with applicable regulations and to optimize the goals of the proposed system. Paul D. Marshall Architects and Engineers, Inc. will assist us in maintaining the historic theme of the area. The site plans will be periodically updated to incorporate the Clients' comments and to respond to required reviews. These will be submitted for further review and comment and will become the basis for final design drawings.

Task 2 – Permitting

We understand, all permits including a USACOE 404 Water Quality Permit and WVDEP 401 Water Quality Permit are being obtained by others. However, we will coordinate all design activities with all applicable permitting agencies.

Task 3 - Meetings and Approval Process

Upon the completion of the preliminary design drawings and permit application submittals, we will attend team meetings and provide services in support of the development approval process not specifically identified under the other tasks outlined in this letter agreement.

PHASE 3 - FINAL CONSTRUCTION PLANS

Task 1- Final Project Design

Upon the completion of previous reviews and resolution of comments, we will finalize design of the project. This will include a final decision on the project features, as well as right of way requirements and/or possible utility relocations.

SCOPE OF WORK

PROJECT APPROACH

Task 2 - Final Construction Drawings and Project Specifications

Upon completion of all reviews and final engineering design, we will prepare bid documents for the project. This will consist of the following, at a minimum:

- Title Sheet
- General Notes
- Site Layout Plans
- Utility Site Plans
- Standard and Special Details
- Specifications

PHASE 4 – BID EVALUATIONS

Task 1 – We will provide engineering support in the evaluation of construction bids and will assist the Client in determining the lowest responsible bid.

PHASE 5 - CONSTRUCTION PHASE SERVICES

Task 1 - Construction Administration Services

Triad has the capability to provide administration services for the construction phase of the project. As you can see from our company overview, we have in-house capabilities for compaction testing, concrete testing, and asphalt paving testing. The Client will have the option of selecting any or all of the services listed above.

Task 2 - As-built Survey

If the Client wishes, upon completion of construction, we will provide an As-Built survey for the new ADA ramp and walkway. The survey will include all visible features of the project as well as any relocated utility locations. The as-built survey will be done one time and will be performed upon substantial completion of the project.

PROJECT PERSONNEL QUALIFICATIONS

TRIAD has assembled a team of individuals with broad experience to bring unmatched knowledge and expertise to your project. The professional staff who will be assigned to your project will possess the necessary qualifications in their particular areas of expertise, and will work with you and your staff to ensure success.

Joe Young is a registered Landscape Architect in West Virginia and Ohio. He has over 21 years of experience on a diverse range of projects covering all aspects of landscape architectural design and planning in both the public and private sector. Mr. Young's experience includes but is not limited to park and streetscape design, resort and campus master planning, subdivision layout, landscape and hardscape design, grading and earthwork calculations, construction detailing, specifications, estimating and project management.

Lee McCoy, our Civil Site Group Manager, is a registered professional engineer in West Virginia, Kentucky and Ohio. He has over 13 years experience in civil site design which always includes development of storm water management plans as well as strictly storm water management projects. He directs a group of other engineers and technicians who also perform design work as well as develop plans and specifications for these projects. Mr. McCoy also works closely with and directs as needed inspectors and construction managers who see the projects through the construction phase.

Parviz Jalali is a registered professional engineer who joined Triad nearly 30 years ago. He is our senior geotechnical engineer who is responsible for geotechnical engineering analysis and design, preparation of geotechnical engineering reports and logging and inspection of soil and rock borings. He supervises the project team for geotechnical and geologic studies.

Earnest (Mac) McCarty is a registered professional surveyor in West Virginia, Kentucky, Pennsylvania, and Tennessee. He is the project manager of Triad's Survey Department in St. Albans. He has managed and completed a wide variety of projects including cadastral boundary surveys, boundary records research, conventional horizontal and vertical control networks, geodetic control surveys, topographic surveys, hydrographic surveys and photogrammetry control surveys. His team of other professional surveyors and technicians will quickly and efficiently handle any surveying requirements of this contract.

PROJECT PERSONNEL QUALIFICATIONS

Larry McCoy is a registered professional engineer in West Virginia and Pennsylvania. He will be performing quality assurance and quality control on this contract. He retired in 2002 from the U.S. Army Corps of Engineers after 33 years of service, the last 12 of which were as the Chief of the Civil Design Section, Design Branch. After his Corps service, he assumed the duties of the Director of Engineering and Construction for the Pittsburgh Water and Sewer Authority where much of the focus was on the many combined sewer outfalls in the Pittsburgh area. Since his arrival at Triad in 2006, he has served as a senior engineer in the Civil Department, preparing proposals, performing design as well as quality control and quality assurance duties.

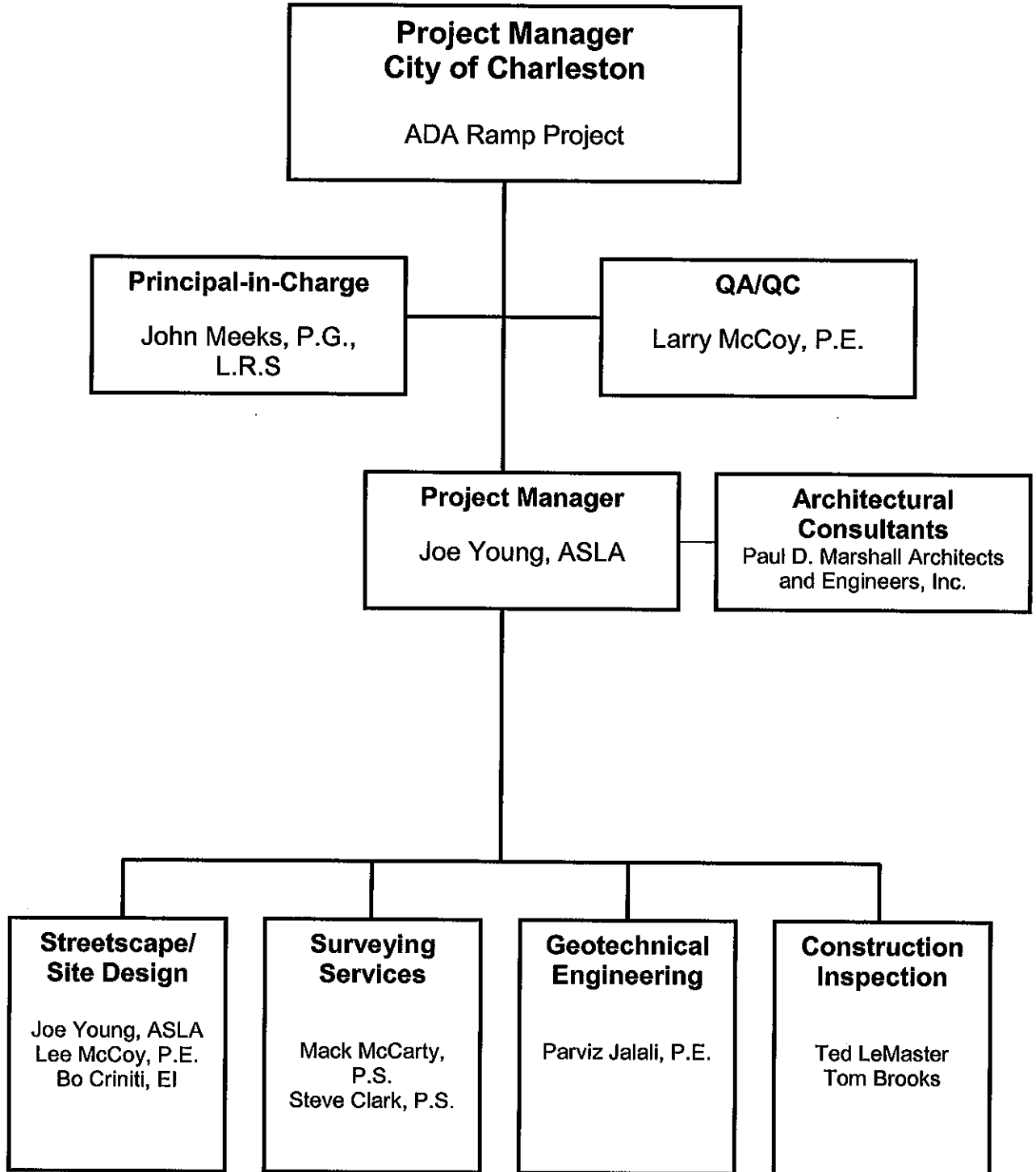
Paul D. Marshall Architects and Engineers, Inc. of Charleston, WV will assist us in maintaining a historic theme with the design of the ramp and walkway. Mr. Paul D. Marshall AIA, founded the firm Paul D. Marshall & Associates, in 1972. For thirty-two years, the firm has enjoyed a celebrated history leading up to the retirement of Mr. Marshall in 2003 and the subsequent sale of the firm in the same year. The firm was restructured and renamed Paul D. Marshall Architects & Engineers, Inc. Mr. Marshall serves as President Emeritus of the firm and assumes an active and vital role as a consultant on many of the firm's projects.

Paul D. Marshall Architects & Engineers, Inc., remains a leading regional architectural firm, specializing in the same market sectors to which the original firm gained its credibility and recognition. These markets include, but are not limited to: Premier primary and resort residences, commercial design, adaptive re-use of existing buildings & properties and historic restoration, preservation and renovation projects.

Paul D. Marshall Architects & Engineers, Inc., employs a knowledgeable staff of degreed professionals with a credible record of notable accomplishments. Since the firm's inception in 1972, the firm has completed over 600 projects ranging in complexity from simple residential additions, to multi-million dollar private and commercial ventures.

PROJECT PERSONNEL QUALIFICATIONS

ORGANIZATIONAL CHART



John M. Meeks, PG, LRS
Branch Manager/Senior Geologist

EDUCATION

BS, Geology
Graduate Studies

West Virginia University, Morgantown, WV, 1980
Marshall University Graduate College

REGISTRATIONS AND LICENSES

Professional Geologist
Licensed Remediation Specialist

Kentucky (No. 556)
West Virginia (No. 008)

DIRECT WORK EXPERIENCE AND PRIMARY RESPONSIBILITIES

Triad Engineering, Inc.,
St. Albans, WV

Branch Manager/Senior Geologist
2001 - Present

Triad Engineering, Inc.,
St. Albans, WV

Environmental Services Manager/Senior Geologist
1990 - 2001

WV Office of Waste Management,
Charleston, WV

Assistant Chief
1985 - 1990

UTD Corp.,
Elkins, WV

Staff Geologist
1982 - 1985

GSI, Inc.,
Huntington, WV

Staff Geologist
1980 - 1982

PROFESSIONAL ORGANIZATION/ASSOCIATIONS

Air & Waste Management Association, WV Chapter

WV Chamber of Commerce, Environmental Committee – Former Waste Team Chair

WVDEP Waste Roundtable – Founding Member

Putnam County Chamber of Commerce – Education Committee

CURRENT POSITION RESPONSIBILITIES

Mr. Meeks is currently Vice President and Branch Manager of the St. Albans office of Triad. In this capacity, Mr. Meeks is responsible for technical quality and management control of all projects in the region. His technical work includes environmental assessment of groundwater, surface water, and soil; brownfield redevelopment projects; wetland mitigation design and permitting; waste management facility design and permitting; and remediation system design and implementation. Mr. Meeks also gained a thorough knowledge of environmental regulatory requirements through his experience with WV Division of Environmental Protection, where he supervised statewide enforcement of waste management regulations; including hazardous waste and solid waste regulatory programs, as well as underground storage tank regulations. Prior to his tenure at WV Division of Environmental Protection, Mr. Meeks managed environmental assessment projects throughout West Virginia and the central Appalachian region. Mr. Meeks is an occasional guest lecturer and educator regarding brownfield redevelopment, wetland treatment systems, groundwater assessment and remediation, and other environmental topics at community and business associations, technical conferences, and college courses.

PROJECT EXPERIENCE SUMMARY

Union Carbide Corporation (DOW Chemical), South Charleston, WV

Provided technical and project management services to plant personnel and the Remediation Technologies Group from 1990 through present:

- As a Project Manager, leading a team of engineers and scientists evaluating and preparing remedial design drawings and construction documents for closure of a Superfund landfill unit located at the former Marietta, OH plant. Project scope included evaluation of alternative cover designs and design of a specialized leachate collection and pumping system. Subsequent work included onsite inspection and certification of the construction.
- As Project Manager, currently responsible for budget and schedule in the oversight of closure of three Superfund units at the former Marietta, OH facility. Our firm's responsibilities include Assistant Site Superintendent and Quality Assurance Officer, providing liaison with representatives of surrounding manufacturing facilities as well as state and federal regulatory officials, interpretation of plans and specifications prepared by others, redesign of certain elements to optimize cost and performance, and preparation of certification documents for US EPA and state regulatory representatives.
- As Senior Geologist, upgrading and redesigning a groundwater extraction system at a former RCRA unit where disposal of wastes had impacted groundwater quality. Project included removal, redesign, and replacement of seven existing recovery wells; evaluation and selection of compressed air actuated product and groundwater pumps, design of compressed air distribution and waste removal system piping; design and retrofit of oil/water separator; evaluation and selection of electrical systems and controls.

Bayer Crop Science, USA, Institute, WV

- As Senior Geologist, responsible for annual re-evaluation of groundwater conditions at a wastewater treatment facility and hazardous waste landfill, including evaluation, interpretation, and presentation of quarterly groundwater quality data; evaluation of an existing corrective action system through groundwater flow modeling; and statistical analysis of data for evidence of groundwater impacts.
- As Project Manager and Senior Geologist, responsible for preparation of groundwater and landfill portions of the facility RCRA hazardous waste management permit.
- As Project Manager and Senior Geologist, preparing Alternate Concentration Limits (ACLs) based on risk assessment of potential human health and ecological impacts to surface waters hydraulically connected to groundwater flowing beneath a wastewater treatment unit.
- As Senior Geologist, planned and oversaw implementation of approximately forty site assessments within a major chemical manufacturing facility with the purpose of evaluating sites for the presence of soil and groundwater contamination which could impact construction of pipelines and other utilities.
- As Project Manager, prepared closure plans, including detailed engineering design and specification, for three hazardous waste impoundments former used as part of the facility waste water treatment system. Project included demolition of existing aerators and mixers, bench scale sludge stabilization studies and stabilization mix design, installation of leachate collection system, and closure cap design and installation.
- As Project Manager, provided engineering design and permitting services for expansion of an existing on-site hazardous waste landfill. A preliminary design concept was prepared for review and approval by facility representatives, followed by preparation of final preliminary design. After acceptance of the preliminary design by facility representatives, Triad prepared a final design package for submission to WVDEP. Finally, an engineering design report, drawings and specifications were prepared for construction of the facility.

PROJECT EXPERIENCE SUMMARY

OSI Specialties, Sistersville, WV

- As Senior Geologist, performed a facility-wide groundwater evaluation to review the effectiveness of an existing groundwater collection system (designed by TRIAD ENGINEERING) in the capture of organic contaminants (primarily chlorobenzene) and inorganic contaminants (primarily copper) released from onsite solid waste management units. This project included the collection of surface water and groundwater elevation data and water quality data over the course of a year from approximately fifty monitoring wells and piezometers, and preparation of contaminant concentration maps and groundwater flow maps representing seasonal variation within the groundwater regime.
- As Project Manager, oversaw remedial design of a formerly closed hazardous waste landfill where waste dewatering has resulted in excessive closure cap settlement. Project included evaluation of the use of alternate fill, including Styrofoam, ash, and other lightweight materials, and the preparation of construction drawings and specifications.

West Virginia Department of Transportation, Charleston, WV

As Project Manager oversaw implementation of annual contract for investigation of hazardous materials and petroleum release sites for WV DOT. Projects have included evaluation of maintenance facilities for releases of organic and inorganic contaminants to soils, groundwater and surface water; investigation of suspect properties slated for right of way acquisition; installation of borings, direct push soil sample locations, and monitoring wells; preparation of cost estimates and specifications for remediation of sites impacted by releases of hazardous materials.

West Virginia Department of Environmental Protection, Charleston, WV

- As Program Manager overseeing implementation of contract services for performing site assessments at potential Superfund sites across West Virginia. Performing various services under CERCLA, including preliminary human health and ecological risk assessments following USEPA and the WV Voluntary Remediation program guidelines.
- As Program Manager, overseeing contract services to conduct remedial evaluations and remedial design services at abandoned landfills across West Virginia, including soil, geologic, and groundwater investigations, closure cap evaluation and design, and leachate collection and treatment system design.

Structures Resources, Inc., Huntington, WV

As Project Manager and Senior Geologist, completed an extensive site assessment of all environmental media and evaluated human and ecological risk for purposes of completing a voluntary remediation project under the WV Brownfields Program. Project included sampling of soils, sediment, groundwater and surface water; preparation of contaminant distribution maps; fate and transport modeling of volatile organic vapors from groundwater and soils to surface structures; fate and transport modeling of groundwater contaminant discharge to an adjacent surface water body; risk assessment calculations for residential and non-residential future land use scenarios using Superfund RAGS methodologies; and design of a natural attenuation groundwater remediation plan.

Structures Resources, Inc., Huntington, WV

As Licensed Remediation Specialist, obtained Certificates of Completion for three separate parcels under the West Virginia Voluntary Remediation Program at a former heavy manufacturing site slated for commercial redevelopment as an office complex with a day care center. Contaminants of concern included TCE in groundwater and soil, and heavy metals contamination in soil. An extensive site assessment of all environmental media was required as well as both human and ecological risk assessment. Project included sampling of soils, sediment, groundwater and surface water; preparation of contaminant distribution maps; fate and transport modeling of volatile organic vapors from groundwater and soils to surface structures; fate and

PROJECT EXPERIENCE SUMMARY

transport modeling of groundwater contaminant discharge to an adjacent surface water body; risk assessment calculations for residential and non-residential future land use scenarios using Superfund RAGS methodologies; and design of a natural attenuation groundwater remediation plan.

ECR Investment Group, Morgantown, WV

As Licensed Remediation Specialist, obtained Certificates of Completion for four separate parcels under the WV Voluntary Remediation Program. Contaminants included LNAPLs and DNAPLs, as well as foundry and plating-related heavy metals contamination in groundwater and soil. Project included sampling of soils, sediment, groundwater and surface water; fate and transport modeling of volatile organic vapors to on-site structures, and groundwater contaminant discharge to an adjacent surface water body; risk assessment calculations for residential and non-residential future land use scenarios; and design of a natural attenuation groundwater remediation plan.

Dominion Resources, Inc., Pittsburgh, PA

As Licensed Remediation Specialist, Senior Geologist, and Project Manager, currently directing the assessment and remediation of free phase petroleum release to groundwater and surface water at the Hastings, WV natural gas extraction plant. Contaminants of concern at this WV Voluntary Remediation Program site include VOCs, SVOCs, and heavy metals. The undetected subsurface release of several hundred gallons of natural gas liquids from an oil/water separator to groundwater has resulted in seepage of free phase petroleum to the adjacent stream. Project responsibilities include liaison with state voluntary remediation program representatives, design and oversight of sampling and analysis, preparation of site assessment documents, design of remedial action, and preparation of final report.

West Virginia Parkways Economic Development Authority, Charleston, WV

As Licensed Remediation Specialist, utilized previously collected environmental data to obtain a certificate of completion under state Voluntary Remediation Program for former heavy equipment maintenance facility. Contaminants of concern included BTEX constituents and SVOCs.

Putnam County Development Authority, Winfield, WV

As Project Manager and Senior Scientist, oversaw the delineation and mitigation of more than 20 acres of jurisdictional wetland area for a proposed business park. Prepared design drawings and technical specifications for construction of replacement wetlands. This replacement wetland enhanced the existing wetland by enlarging its contiguous size, introducing varied hydroperiods, and introducing richer, more varied plant species. The wetland was integrated into the business park development to provide "green space", and provides a separation between warehouse-style land use and professional-style land use within the property. This project won Gold Award from WV Chapter of American Council of Engineering Companies.

Natural Wetland Treatment System for Landfill Leachate, Mason County, WV

As Designer and Project Manager, designed an innovative wetland-based treatment system to address an abandoned landfill leachate discharge. This included design of several seep collection systems and associated sewer lines, as well as two independent wetland treatment systems. The treatment systems included an alternating aerobic/anaerobic approach to facilitate removal of organic (primarily ammonia nitrogen) and inorganic (primarily iron and manganese) contaminants. This design featured the use of dosing siphons to allow for spray aeration of leachate in two separate phases, each followed by a separate anaerobic treatment step.

Natural Wetland Treatment System for Mine Water, Kayford, Kanawha County, WV

As Project Manager, oversaw and assisted in design of a wetland-based treatment system to address the release of mine water to a tributary to Ten-mile Fork of Cabin Creek, near Kayford, WV. In this design, our firm provided characterization of the mine discharge quality and quantity, evaluated alternative treatment methods, performed treatment unit sizing calculations, and completed engineering plans and specifications for a sawdust/peat surface-flow wetland system coupled with limestone cascade aerators and metal sludge settling basins.

PROJECT EXPERIENCE SUMMARY

Natural Wetland Treatment System for Surface Water, Taplin, Logan County, WV

As Technical Advisor to the design team, assisted in the design of a surface flow wetland system to address sediment laden storm water run-off from a portion of a surface mine operation. This design allowed for the settling and treatment of the majority of storm events (<5 yr/24 hr), but included a hydraulically controlled bypass system which routed excessive flows from larger, less frequent storm events (>5 yr/24hr) to bypass the wetland system, thereby preventing damage to the system through high velocity erosion.

Environmental Impact Study, Kanawha County, WV

As Project Manager and Senior Scientist, managed and assisted in the preparation of portions of the EIS for a highway widening project for WV DOT. Sections of the EIS prepared by Triad included Noise Impacts, Surface water Impacts, Groundwater Impacts, Wetland Impacts, Threatened or Endangered Species Impacts, Mineral Resources, and Hazardous Waste.

Environmental Impact Study, Marion County, WV

As Project Manager and Senior Scientist, managed and assisted in the preparation of several sections of the EIS for a new access road between I-79 and Rivesville, WV. Sections of the EIS prepared by Triad included Noise Impacts, Surface water Impacts, Groundwater Impacts, Wetland Impacts, Threatened or Endangered Species Impacts, Mineral Resources, and Hazardous Waste.

Landfill Expansion, Ashland, KY

As Project Manager and Senior Geologist, managed and assisted in the preparation of permitting and design of a vertical expansion (VEX) of an existing landfill facility. This included construction of rock/earthen berms along the margins of the existing facility. The VEX application consisted of engineering plans, cross sections, details, and supporting calculations. Two important elements of the application included a demonstration that adequate soils were available, and that the presence of previous underground mining did not compromise the structural soundness of the berms.

Larry L. McCoy, P.E.
Senior Engineer

EDUCATION

| | |
|-----------------------------|---|
| B.S. Civil Engineering | West Virginia Institute of Technology, 1969 |
| M.S. Engineering Management | West Virginia University College of Graduate Studies, 1992 |

REGISTRATIONS AND LICENSES

| | |
|----------------------------------|--------------------|
| Registered Professional Engineer | West Virginia 6489 |
| Registered Professional Engineer | Pennsylvania 62131 |

DIRECT WORK EXPERIENCE AND PRIMARY RESPONSIBILITIES

| | |
|---|---|
| Triad Engineering, Inc., St. Albans, WV | Senior Engineer 2006—present |
| Pittsburgh Water and Sewer Authority | Director of Engineering & Construction 2002—2004 |
| U.S. Army Corps of Engineers Huntington, WV | Chief, Civil Design Section 1990-2002 |
| U.S. Army Corps of Engineers Huntington, WV | Civil Engineer 1969-1990 |

PROFESSIONAL ORGANIZATION/ASSOCIATIONS

Society of American Military Engineers (SAME)
West Virginia Recreation and Park Association (WVRPA)

CURRENT POSITION RESPONSIBILITIES

Mr. McCoy brings over 35 years of design and project management experience to Triad Engineering. He has been involved in numerous aspects of civil site design, as well as water and wastewater engineering. Mr. McCoy joined Triad in 2006 to provide technical assistance regarding quality control/quality assurance as well as management of civil design projects. Before coming to Triad, Mr. McCoy served as the Director of Engineering and Construction for Pittsburgh Water and Sewer Authority. In this role he was responsible for the engineering, design, and construction of water and sewer work performed by and for the Authority and City Agencies. During his tenure with the U. S. Corps of Engineers, he planned the work and organized and directed teams in the preparation of reports, construction contract drawings and specifications and review of shop drawings for the civil engineering features of new and rehabilitation of existing water resources projects.

PROJECT EXPERIENCE SUMMARY

Triad Engineering

In his three+ years of experience at Triad, Mr. McCoy has played an important role on numerous civil site, landscaping, water and sewer projects teams by performing both quality control and quality assurance reviews. He also has been very active in marketing, business development, and sales. He often has made initial customer contact, developed formal proposals, and participated in final project selection interviews.

Pittsburgh Water and Sewer Authority

Mr. McCoy was responsible for developing contracts and monitoring contract performance. He coordinated work with other City departments as well as the Port Authority of Pittsburgh, the Urban Redevelopment Authority, and the Sports and Exhibition Authority to provide the citizens of Pittsburgh and surrounding areas with a quality product for their fees and tax monies.

US Army Corps of Engineers

As the Chief, Civil Design Section, Design Branch, Mr. McCoy planned the work and organized and directed teams in the preparation of reports, construction contract drawings and specifications and review of shop drawings for the civil engineering features of new and rehabilitation of existing water resources projects including:

- flood control multipurpose dams
- water and sanitary systems
- navigation locks and dams
- nonstructural floodproofing
- redevelopment sites
- recreational facilities
- environmental restoration and mitigation
- streambank stabilization
- floodwalls and levees
- channel improvements
- highway, and railroad and utility relocations

US Army Corps of Engineers

Mr. McCoy was the lead project design engineer for RC Byrd (\$250 M) and Winfield (\$150 M) lock replacement projects. Products included design memoranda, contract drawings, technical specifications, technical briefings and briefings to the general public. In addition, Mr. McCoy actively participated in the work and technically supervised a team of 5-9 engineers and technicians in the preparation of the civil site portion as well as coordinated other disciplines in other sections, branches and divisions in the production of the plans and specifications for the lock replacement projects.

Joseph Young, ASLA
Landscape Architect

EDUCATION

BSLA, Landscape Architecture

West Virginia University, WV, 1989

REGISTRATIONS AND LICENSES

Registered Landscape Architect

West Virginia & Ohio

DIRECT WORK EXPERIENCE AND PRIMARY RESPONSIBILITIES

Triad Engineering, Inc.,
St. Albans, WV

Project Manager/Landscape Architect
2003 - Present

Edwards and Kelcey,
Charleston, WV

Project Manager/Landscape Architect
2000 - 2003

Environmental Design Group,
Charleston, WV

Project Manager/Landscape Architect
1997 - 2000

The Siebenthaler Company,
Dayton, Ohio

Project Manager/Landscape Architect
1996 - 1997

Woolpert LLP,
Dayton, Ohio

Landscape Architect
1990 - 1997

PROFESSIONAL ORGANIZATION/ASSOCIATIONS

West Virginia Recreation and Park Association (WVRPA)
American Society of Landscape Architects (ASLA)

CURRENT POSITION RESPONSIBILITIES

Mr. Young currently serves as Landscape Architect for the St. Albans branch of TRIAD. In this capacity, Mr. Young brings nineteen years of experience on a diverse range of projects covering all aspects of landscape architectural design and planning in both the public and private sector. Mr. Young's experience includes but is not limited to park and streetscape design, resort and campus master planning, subdivision layout, landscape and hardscape design, grading and earthwork calculations, construction detailing, specifications, estimating, and project management. Mr. Young also performs Project Management on related projects, and has been involved in planning projects for national and international military bases, pocket parks, 5,000 acre reserves, large downtown streetscapes, subdivision layout and design, and campus master plans for many college and universities.

PROJECT EXPERIENCE SUMMARY

Washington Nile Local School District, West Portsmouth, Ohio

The project consists of the development of an middle school on an existing existing high school and elementary site. The new addition will occupy the area now being used as an football practice field and open play area. Site features included the development of a new circulation and parking system, the placing of the building for appropriate sun orientation, pedestrian circulation around the site, utility design and an extensive storm water management system. Triad worked with a project team headed by the architect and owner, to develop a complete comprehensive set of construction documents. Client: Tanner Stone & Company Architects

Clay Local School District, Portsmouth Ohio

The project consists of the development of an existing high school site into a K-12 school site with the addition of the middle and elementary schools . The new addition will occupy the area now being used as student and faculty parking area. Site features included the development of a new circulation and parking system, the development of age appropriate play areas, outdoor learning areas, outdoor courtyard area, pedestrian circulation around the site, utility design and an extensive storm water management system. Triad worked with a project team headed by the architect and owner, to develop a complete comprehensive set of construction documents. Client: Tanner Stone & Company Architects

King's Daughters Medical Center Medical Office Building Ashland, Kentucky

Triad provided site civil engineering services as well as landscape architectural services for 3 Medical Office Building in Southern Ohio and Eastern Kentucky. Triad worked with a project team headed by the Architect and the owner, to develop a complete comprehensive set of construction drawings. This project involved optimizing the available property to accommodate the medical office building and parking areas that improved circulation on the site to allow for a patient drop-off area at the front of the building. Services provided by Triad included preparation of construction documents and details including site grading and drainage features, landscaping to compliment the architecture of the building and local and state permits. Owner: Kings Daughter Medical Center, Howard Harrison, Director of Facilities

King's Daughters Medical Center Vision Master Plan, Ashland, KY

Triad Engineering, Inc. was asked to team with Kreps and Zachwieja Architects / Consultants Inc. to provide a comprehensive plan for the future development of King's Daughters Medical Center campus. This includes the realignment of roads and the placement of several new facilities. The plan also includes the development of a green space system that allows patients, visitors and employees to walk from building to building with minimal vehicular conflicts.

Bridge Road Master Plan, Charleston WV

Triad Engineering, Inc. was recently selected by the South Hills Neighborhood Association to prepare a Master Plan for the South Hills Business District. The purpose of this study is to provide a framework and guidance for the future development and enhancements in the Bridge Road Business District. The main goals were to increase pedestrian circulation and safety, increase parking and improve overall aesthetics and beatification of the area. Design Highlights include: Gateways into the district, increase parking opportunities, ADA compliance upgrades, new site amenities and lighting improvements, crosswalks as well as landscape design pallet to be used throughout the business district

Wolf Point Park, Ashland, KY

A 65 acre site near Ashland Kentucky will be the future site of an instructional baseball and sports academy for the local community. The park will have a 40,000 square foot multi-purpose indoor facility that will be able to be used for baseball, soccer, gymnastics and weight training. There will also be 4 Little League fields with a central concession / restroom and scorers area and 4 Babe Ruth fields with a central concession / restroom and scorers area. All fields will be lit to maximize the play and instructional time. The park will also have a walking/fitness trail and parking for 600 cars.

PROJECT EXPERIENCE SUMMARY

Volunteer Ballpark on Memorial Boulevard, Huntington, WV

This project consists of a Little League Baseball park to be constructed in Huntington West Virginia. The project is being built by a nonprofit organization that is developing this Owens-Corning refuse landfill into the youth sports complex. The project consists of 2 fields with bleachers and scorers booth, concession/ restroom facility, a ceremonial plaza and a promenade. Project Manager / Designer.

Powderidge Condominium Improvements, Snowshoe, WV

Prepared plans for site improvements, such as signage, parking reconfiguration, entries into the buildings, ski slope access, slope side site amenities, snow management, and its impact on the landscape. Project Landscape Architect, Powderidge Home Owners Association, Snowshoe, WV.

Stonewall Jackson State Park, Roanoke, WV

Prepared plans and construction documents for 198 unit lakeside lodge and conference center with indoor and outdoor pool, outdoor dining, snack bar, fire pits, and overlook deck. Other site improvements included placement of 10 water front cottages and campsites site improvements.

The Forbes Center, Master Plan, Charleston, WV

Prepared Landscape and hardscape plans for a new executive office complex located in the NorthGate Business Park in Charleston, WV. Design drawings include the development of an entrance auto court and perennial garden courtyard to be used for outdoor dining and gatherings. Project Manager, The Forbes Center.

St. Albans Streetscape, St. Albans, WV

Triad Engineering, Inc. was recently selected by the City of St. Albans to design the new gateway and streetscape improvements to the downtown area. Services included the preparation of a master plan, construction documents, and construction administration. The streetscape included parking improvements, landscape improvements, reduction of pedestrian and vehicular interaction, period lighting upgrades, concrete sidewalks with clay pavers, street furniture, and the creation of a gateway sequence into the downtown area.

Washington Street Improvements, Charleston, WV

Prepared concepts for addressing sidewalk, intersection, crosswalk, street pavements, furniture and landscaping linking two existing streetscape for The Charleston Renaissance Corporation.

Washington Street Streetscape Master Plan, Charleston, WV

Prepared a master plan for a 1-mile area of Charleston that connects the downtown district with the West Virginia State Capital Complex. The plan gave recommendations on site amenities such as benches, trash receptacles, lighting, bollards, sidewalk configurations and planting areas. Project Manager, Charleston Urban Renewal Authority

Ripley Streetscape Improvements, Ripley, WV

Prepared construction documents for a 1 block historic area of Ripley. The streetscape was designed to not detract from the history of Jackson County Court House on the south side of the block. The design used light fixtures that were similar in design as to those found on the Court House, clay brick pavers and site furniture that blended into the historic fabric of the area. Project Manager, The City of Ripley WV and Main Street Ripley.

Washington Street East Streetscape Improvement Project, Charleston, WV

Prepared streetscape construction documents for a 3 block area of Charleston, WV. The streetscape included the installation of trees, concrete sidewalks with clay pavers, ornamental streetlights and miscellaneous street furniture. Project Manager, Charleston Urban Renewal Authority.

West Side Community Revitalization Plan, Charleston, WV

The development of pedestrian amenities throughout the west side of Charleston, WV, which included the development of gateways into the area, landscape treatments for beautification and

PROJECT EXPERIENCE SUMMARY

screening, streetscape guidelines, roadway realignment and the development of green spaces. Project Manager, City of Charleston and West Side Neighborhood Association.

White Sulphur Springs Streetscape Improvement Project, White Sulphur Springs, WV

Prepared a master plan and streetscape construction documents for a 3 block area of downtown White Sulphur Springs WV. The streetscape included 60 degree angled parking, the installation of trees, concrete sidewalks with clay pavers, ornamental streetlights and miscellaneous street furniture. Project Manager, City of White Sulphur Springs.

Charleston Newspapers, Pedestrian Park, Charleston, WV

The development of a pedestrian park that could be utilized by employees as well as the general public. The park plan includes a low limestone seat wall that reflects the stone on the newspaper office building as well as the adjacent bridge. A fountain to mask the sound of the traffic with extensive landscape treatments. Project Manager, Charleston Newspapers.

Paul G. Duke Park, Troy, OH

Prepared design plans and contract documents for the development of \$1.5 million of improvements which included lighted softball and baseball fields; football / soccer fields; restroom/ concession buildings; picnic shelters; site utilities and landscape and irrigation treatments. Project Landscape Architect, The City of Troy, Ohio

The Miller Addition, Englewood, OH

Master Plan to renovate a 135 acre sand and gravel quarry into a park facility which included fishing access areas, day-use areas, canoeing access, accessible walking and nature trails throughout the site. The renovation was needed to replace existing water related activities that were gradually being lost in the main reserve because of siltation. Project Landscape Architect, The Park District of Dayton and Montgomery County.

Englewood Reserve Master Plan, Englewood, OH

Prepared a master plan for an area, which includes 5000 acres surrounding the scenic, designated Stillwater River. The plan contained numerous key recommendations for the development of the reserve including development of policies on land stewardship; detailed schematic layout of vehicular, pedestrian, and bicycle access. Project Landscape Architect, The Park District of Dayton and Montgomery County.

Camp Kern YMCA Master Plan, Dayton, OH

Prepared a master plan for a 420 acre site located adjacent to the scenic Little Miami River. The planning issues to be resolved were vehicular and pedestrian traffic conflicts; poor relationships between existing natural environments and man made facilities. Project Landscape Architect, YMCA of Metropolitan Dayton, Ohio

Chaminade- Julienne Catholic High School Master Plan, Dayton, OH

Master plan for an urban Catholic High school which included the development of student parking facility, proposed athletic facility building, multi-purpose fields, tennis courts, main arrival court, and the development of outdoor student spaces. Project Landscape Architect, Chaminade-Julienne Catholic High School.

Englewood Streetscape Development, Englewood, OH

Prepared a master plan and construction documents for a five block area of old downtown Englewood. Improvements included stone walls that replicate existing stone foundations, period style lighting from pedestrian to traffic signalization, clay pavers, ornamental fencing and a new pocket park. Project Landscape Architect, City of Englewood, Ohio.

River Corridor Street Closure, Streetscape, Dayton, OH

Complete site planning and construction documents for the redevelopment of existing parking facilities, and the closure of an dangerous, under-used city street in the warehouse district in Dayton, Ohio. Redevelopment plans included employee gathering spaces, pedestrian circulation,

PROJECT EXPERIENCE SUMMARY

and the development of an formal entrance to the facility. Project Landscape Architect, Dayton Hydraulic Company, Dayton, Ohio.

University Oxbow, Ohio University, Athens, OH

Prepared concepts to improve the appearance of topographically depressed area known as the Oxbow. The project included the review of existing conditions with both University and the Hocking Conservancy District and documented both assets and liabilities related to the site. The concepts included water as the main feature and elaborate planting designs. Project Landscape Architect, Ohio University, Athens, Ohio.

Jefferson Community College, Master Plan, Louisville, KY

Development of concepts and a physical development plan for a suburban community college in Louisville, Kentucky. The plan included new buildings, plaza areas, new parking areas, education trails and recreation areas. Project Landscape Architect, University of Kentucky

Ohio University East Green, Landscape Development Plan, Athens, OH

Prepared a plan to identify existing problems and opportunities and develop a plan for the redevelopment for the East Green, a significant open space with in the residential area of Ohio University's campus. The plan included the development of bicycle storage areas, recycling areas, location of low accent walls and benches and the development of a low maintenance landscape plan. Project Landscape Architect, Ohio University, Athens, Ohio.

Emro Corporation Headquarters, Springfield, OH

Prepared master plan and construction documents which included site layout for a 400 car parking lot, visitor parking and drop off areas, retention pond, employee trail system, entrance plaza design, and extensive landscape plans which included a 500-foot dry stream bed. Project Landscape Architect, Emro Corporation.

Residential Community, Master Plans, Southwest Ohio

Master plans involving layout of communities ranging from single-family executive, single family estate and multi-family developments. All the developments include site amenities such as open space park areas, pool and clubhouse facilities, retention/ detention lakes, and various entrance features. Project Landscape Architect, Southwest Ohio, Various Clients.

L. Lee McCoy, Jr., P.E.
Senior Engineer/Project Manager

EDUCATION

B.S. Civil Engineering

West Virginia Institute of Technology, 1996

REGISTRATIONS AND LICENSES

Professional Engineer

No. 14731 West Virginia
No. 25932 Kentucky
No. 73186 Ohio

DIRECT WORK EXPERIENCE AND PRIMARY RESPONSIBILITIES

Triad Engineering, Inc.,
St. Albans, WV

Civil Engineering Group Manager/Senior Engineer
2006 - Present

Buchart Horn, Inc.,
Charleston, WV

Senior Engineer
2003 - 2006

City of Charleston,
Charleston, WV

City Engineer
2001 - 2003

Benatec Associates,
Hurricane, WV

Engineer III
1999 - 2001

Chester Engineers,
Huntington, WV

Engineer I
1996 - 1999

CURRENT POSITION RESPONSIBILITIES

Mr. McCoy is currently the Department Manager for our Civil/Transportation Design Section and a Project Manager for the St. Albans office of TRIAD. In this capacity, he is responsible for the oversight of our civil engineering staff as well as the technical and management aspects of civil design and transportation projects within the office. Mr. McCoy has designed and managed projects in numerous disciplines including civil, structural and transportation engineering, site development, planning and surveying. These projects have included streets/highways, bridges, retail/commercial site preparation, airports, parking lots, buildings, retaining walls/foundations, sanitary structures, as well as recreational facilities. Duties included field surveying, drawings and specification preparation, design, design drafting, construction inspection, quality control testing, shop drawing review, project management, contract administration and report preparation.

PROFESSIONAL ORGANIZATIONS/ASSOCIATIONS

American Society of Civil Engineers
Society of American Military Engineers

PROJECT EXPERIENCE SUMMARY

West Virginia Department of Transportation, Division of Highways, Charleston, WV

American Church Bridge Replacement, Delbarton, WV

Project Manager and lead roadway designer for the replacement of the American Church Bridge in Delbarton and related roadway work in Mingo County, WV. This project included managing structural engineers, geotechnical engineers, surveyors, other roadway engineers, and designers. Design work for this project included drainage, HEC-RAS analysis, roadway design, and right of way design.

Corridor H, U.S. 48 – Scherr, WV

Project Manager and lead roadway designer for 2.25 miles of 4 lane divided highway in Grant County, WV. This project included managing structural engineers, geotechnical engineers, surveyors, other roadway engineers, and designers. Worked closely with West Virginia Department of Transportation personnel as well as local residents during the highways design through the environmentally sensitive Greenland Gap area.

Dunlow Thru Truss Bridge Replacement, Dunlow, WV

Project Manager and lead roadway designer for the replacement of Dunlow Thru Truss Bridge and related roadway work in Wayne County, WV. This project included managing structural engineers, geotechnical engineers, surveyors, other roadway engineers, and designers. Design work for this project included drainage, HEC-RAS analysis, roadway design, and right of way design.

U.S. 460 – I77 Interchange, Princeton, WV

Project Manager and lead roadway designer for replacement of existing bridge over I-77 in Mercer County, WV. This project included managing structural engineers, geotechnical engineers, surveyors, other roadway engineers, and designers. Worked closely with West Virginia Department of Transportation personnel during the Maintenance of Traffic planning stages to maintain traffic flow during construction at this very busy interchange.

Jones Laughlin Overpass Bridge Replacement, Martinsburg, WV

Project Manager and lead roadway designer for bridge replacement and associated roadway on WV Route 45 in Berkeley County, WV. This project included managing structural engineers, geotechnical engineers, surveyors, other roadway engineers, and designers.

Tablers Station Connector, Martinsburg, WV

Project Manager and lead roadway designer for 1.57 miles of 4 lane highway including an interstate overpass bridge in Berkeley County, WV. This project included managing structural engineers, geotechnical engineers, surveyors, other roadway engineers, and designers. Extra care was involved in this project due to numerous manufacturers in the area as well as historic properties.

Hundred Littleton Bridge Replacements, Littleton, WV

Roadway designer and lead right of way designer and investigator for the replacement of 2 bridges along U.S. 250 in Wetzel County, WV.

PROJECT EXPERIENCE SUMMARY

Hobet Mining, LLC – Madison, WV

Performed design of roadway, drainage, and pavement for the relocation of Boone County Route 9 near Madison, WV.

Appalachian Fuels, LLC – Man, WV

Performed design of roadway, drainage, and pavement for the relocation of Logan County Route 10 near Pardee, WV.

Pendleton County Commission - Franklin, WV

Project Manager and lead designer for a park project near Ruddle, WV. This park includes baseball fields, jousting field, parking facilities, exercise trails, and concession building. Mr. McCoy also managed the preparation of construction documents and aided in the bidding of the project. As **Project Manager and Lead Engineer**, provided technical supervision and oversight to the civil site design for the construction of this \$300,000 Recreational/ Sport Park. This project included grading, drainage, roadway design, parking lot design, as well as all aspects of designing a large multi use sports complex. As Project Manger, was also responsible ensuring that the site was able to acquire United States Corps of Engineers Permitting due to sensitive flood plan issues.

BB & T Bank – Louisville, KY

As Project Manager and Lead Designer, Mr. McCoy prepared construction documents for the construction of a branch bank in Beckley, WV. This project includes grading, drainage, roadway expansion, parking lot design, as well as many other aspects.

Marshall Foundation – Huntington, WV

As Project Manager and Lead Designer, Mr. McCoy prepared construction documents for the construction of a 33,000 square foot alumni center in Huntington, WV. This project includes grading, drainage, roadway expansion, parking lot design, as well as many other aspects.

Loves Country Stores – Ripley, WV

As Project Manager and Lead Designer, Mr. McCoy prepared construction documents for the construction of a truck stop/travel store in Ripley, WV. This project includes grading, drainage, roadway expansion, parking lot design, as well as many other aspects.

Putnam County Office of Planning and Infrastructure, Putnam County, WV

Contracted to Putnam County as Putnam County Engineer. In this position, Mr. McCoy performs site and building reviews and inspections countywide, for West Virginia's second fastest growing county.

Platinum Properties, Morgantown, WV

As Project Manager and Lead Designer, provided design and construction documents for the construction of Platinum Drive and associated utilities in Bridgeport, WV. This included:

- Design and specification of roadway.
- Design and specification of sanitary sewer extension.
- Design and specification of waterline extension.

City of Charleston, Charleston, WV

- ***Kanawha Boulevard Sidewalk Renovation Project*** - As Project Manager and Lead Designer, provided construction plans and documents for this federally funded multimillion dollar project including several miles of sidewalk and lighting renovations. This project involved the management of several different contractors as well as working with numerous funding agencies.

PROJECT EXPERIENCE SUMMARY

- **Streetscape Renovations** - As Project Manager and Lead Designer, designed several renovations to existing streetscape areas within downtown Charleston, WV. Areas involved the following areas:
 - Lee Street Triangle
 - Hale Street/Quarrier Street Intersection
 - Dickenson Street/Lee Street Intersection (1st in state to utilize Streetprint® asphalt paving process)

Habitat for Humanity of Kanawha and Putnam Counties - South Charleston, WV

As Project Manager, Lead Designer, and Construction Administrator, designed and specified for the construction of Jubilee Heights, a multiple phase subdivision in the City of South Charleston, WV.

Rite Aid Corporation - New Cumberland, PA

As Project Manager, Lead Designer, and Construction Administrator, Mr. McCoy performed work at the following new Rite Aid stores:

- Huntington, WV, Hal Greer Boulevard
- Beckley, WV, Robert C. Byrd Drive
- Beckley, WV, Eisenhower Drive

Devonshire Development, Scott Depot, WV

As Project Manager and Lead Engineer, Mr. McCoy, is responsible for the project design and construction administrative services for a large resort style mix use residential development located in Scott Depot, WV. This development consists of apartments, townhouses and condominiums, state-of-the-art 6500 sq ft clubhouse as well as swimming pools, Jacuzzis, sport courts, tot lots, and dog exercise areas. This project includes grading, drainage, permitting, parking lot design, as well as many other aspects.

WVDEP, Division of Abandoned Mine Land & Reclamation, various locations

As Project Manager and Lead Engineer, Mr. McCoy has been responsible for numerous AML&R designs throughout southern West Virginia. These designs have included grading, drainage, sealing of mine portals (wet & dry), and all aspects related to the closure and reclamation of pre-law mining sites.

James R. (Bo) Criniti, Jr.
Staff Engineer

EDUCATION

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|------------------------|-----------------------------|
| B.A. Chemistry | WVU, Morgantown, WV 1995 |
| B.S. Civil Engineering | WVUIT, Montgomery, WV, 2008 |
| F.E. Examination | October 2009 |

DIRECT WORK EXPERIENCE AND PRIMARY RESPONSIBILITIES

| | |
|---|--|
| Triad Engineering, Inc. St. Albans, WV | Staff Engineer 2008 to Present |
| Dow Chemical Charleston, WV | Laboratory Technologist 1999 to 2005 |
| Clearon Corp., South Charleston, WV | Quality Assurance Technician 1997 to 1999 |
| Custom Contracting Elkview, WV | General Contracting Foreman 1996 to 1997 |

PROFESSIONAL ORGANIZATION/ASSOCIATIONS

American Society of Civil Engineers Member

CURRENT POSITION RESPONSIBILITIES

Mr. Criniti is responsible for Staff Support of civil and surveying projects. He has participated in the design and management of numerous projects. These projects have included retail/commercial site preparation, airports, parking lots, buildings, retaining walls, foundations, sanitary structures, as well as boundary and topographic and photogrammetric surveys. Duties have included hydrologic and hydraulic analysis and design, erosion and sediment control plans, storm water management, field surveying, preparation of construction and as-built drawings, project specifications and preparation of various permit applications. Mr. Criniti also performs construction management, construction inspection, quality control testing, shop drawing review, project management, contract administration, and report preparation. He performs engineering calculations, studies, plans, reports and data analysis, all under the supervision of a licensed engineer. Mr. Criniti assists in the coordinating of construction projects including conducting pre-bid, pre-construction and progress meetings, schedule review and pay request review and approval. He also assists in conducting interim and final inspections of construction projects to determine compliance with applicable laws, regulations, and specifications.

PROJECT EXPERIENCE SUMMARY

City National Bank – Construction Administration Services, WV

This project consists of a state wide contract to provide construction administration services for City National Bank on bank loans for commercial construction projects. On this project Mr. Criniti is responsible for performing periodic job site inspections of work progress, reviewing contractor pay requests, monitoring project schedules as they pertain to percent completion and pay requests, and conducting periodic progress meetings.

Devonshire Housing Development, Scott Depot, WV

As a Staff Engineer, Mr. Criniti has been involved in and is responsible for site development design and permitting for various portions of this large residential development. In this capacity he has to coordinate with the project architect, local municipalities, the WVDOH and the project developer. Work on these projects includes building pad positioning and elevation, access road layout including grading design, parking lot layout, utility routing, storm drainage feature layout and design. Permitting work on these projects includes WVDOH encroachment permitting, health department permitting and NPDES permitting for handling surface water during construction. Mr. Criniti is also responsible for attending and conducting project meetings with the project contractor, the developer and associated agency.

BB&T Facility Beckley, WV

As a Staff Engineer, Mr. Criniti has been involved in and is responsible for the drainage design and permitting for this branch bank facility. In this capacity he has to coordinate with the project architect, local municipalities, the WVDOH and the project developer. Work on this project included, utility routing, storm drainage design, storm water management design and preparation of WVDOH encroachment permit applications, health department permit application and NPDES permit application for handling surface water during construction. Mr. Criniti is also responsible for performing construction admin on this project consisting of site inspections, pay application review and approval and construction schedule monitoring.

Washington Nile, Clay Local School District and Portsmouth Athletic complex , Various, Ohio

As a Staff Engineer, Mr. Criniti has been involved in and is responsible for the drainage design and permitting for these projects. In this capacity he has to coordinate with the project architect, local municipalities, the ODOT and the project developer. Work on these projects included, utility routing, storm drainage design, storm water management design and preparation of ODOT encroachment permit applications, health department permit application and NPDES permit application for handling surface water during construction. Mr. Criniti is also responsible for performing construction admin on this project consisting of site inspections, pay application review and approval and construction schedule monitoring.

Tolsia Athletic Fields, Fort Gay, West Virginia

As a Staff Engineer, Mr. Criniti has been involved in and is responsible for the drainage design and permitting for this project. In this capacity he has to coordinate with the project architect, local municipalities, the WVDOH and the project developer. Work on this project included, utility routing, storm drainage design, storm water management design and preparation of WVDOH encroachment permit applications, health department permit application and NPDES permit application for handling surface water during construction. Mr. Criniti was responsible for performing construction admin on this project consisting of site inspections, pay application review and approval and construction schedule monitoring.

Parviz J. Jalali, P.E.
Senior Project Engineer Geotechnical

EDUCATION

BA, Civil Engineering
BS, Civil Engineering

Tehran Institute of Technology, 1973
West Virginia Institute of Technology, 1979

REGISTRATIONS AND LICENSES

Registered Professional Engineer

West Virginia

DIRECT WORK EXPERIENCE AND PRIMARY RESPONSIBILITIES

Triad Engineering, Inc.
St. Albans, WV

Senior Engineer
1991- present

Triad Engineering
St. Albans, WV

Project Engineer
1988- 1991

Triad Engineering
St. Albans, WV

Staff Engineer
1980- 1988

Rahyar Engineering Consultants, Inc
Tehran, Iran

Staff Engineer
1975- 1976

CURRENT RESPONSIBILITIES

As a senior geotechnical engineer, Mr. Jalali is responsible for geotechnical engineering analysis and design, preparation of geotechnical engineering reports and logging and inspection of soil and rock borings. Mr. Jalali has developed a specialized permeability testing program to facilitate design of a suitable clay liner for a large hazardous waste impoundment designed by TRIAD. Mr. Jalali operates our in-house computers for slope stability analysis, quantity determinations, and computer aided design drafting. Mr. Jalali supervises the project team for geotechnical and geologic studies for all highway related projects. Duties include design and implementation of the subsurface investigation, assignment of laboratory testing, approval of design drawings and technical specifications.

PROJECT EXPERIENCE SUMMARY

Appalachian Corridor "H", Hardy County, WV

TRIAD has performed geotechnical and surveying services as a sub consultant for several sections of Appalachian Corridor H. One of the larger sections was for Section 4, located between Baker and Wardesville in Hardy County. This length of Appalachian Corridor H mainline included approximately 12,270 meters. As part of the mainline, six bridges were proposed to carry the new alignment over WV 55 & 259, Lost River (at three locations), Sauerkraut run and Trout Run. This work was accomplished for the design firm.

The geotechnical investigation consisted of a geological study for the region, drilling a total of 274 roadway borings and 254 structure borings, full-time field inspection of the drilling activities, laboratory testing of the soil/rock samples, preparation of boring logs, cut slope/bench recommendations for the proposed cut areas, slope stability analyses/evaluation for all proposed fill areas, detailed foundation recommendations (shallow and/or deep) for abutment and piers for the six proposed bridges, and preparation of complete geotechnical reports for the mainline and bridges.

Coalfields Expressway, Sophia, WV

As the senior geotechnical engineer on this project, Mr. Jalai oversaw all geotechnical aspects of the project including developing a boring layout based on the project cross-sections provided by the client. His work included supervision of work of field inspectors during the subsurface investigation. Mr. Jalai supervised the design of cut and fills slopes, performed settlement calculations for embankment fills, estimated shrink/swell factors for excavated materials, and tabulated probable sources of select embankment. After the original subsurface investigation and geotechnical report was completed, the WVDOT decided to extend the project 800 ft. in an attempt to balance borrow and waste. A recall boring list was developed in order to continue the project.

King Coal Highway, Mercer County, WV

As the senior geotechnical engineer on this project, Mr. Jalai oversaw the lead inspector as he worked in the field during the subsurface investigation and logging soil and rock. Designed and implemented cut and fill slopes, performed slope stability analyses on critical embankment fills, oversaw settlement calculations for embankment fills, estimated shrink/sell factors for excavated materials, and tabulated probable sources of select embankment. Supervising and approval of all geotechnical reports for the project, including three bridges (Bridge Nos. 10084, 10085, and 10086) which included foundation recommendations and bearing capacity computations for each of the bridge abutments and piers.

West Virginia Route 9, Jefferson and Berkeley Counties, WV

As the senior geotechnical engineer Mr. Jalai supervised the inspectors and reviewed the logging of all soil and rock from bore holes and controlled the involved drill rigs. Oversaw the design and implementation of cut and fill slopes, slope stability analyses on critical embankment fills, the estimated shrink/sell factors for the excavated materials, and the tabulations of probable sources of select embankment.

Earnest M. McCarty Jr., (Mac), P.S.
Project Manager-Surveying Department

EDUCATION

| | |
|-----------------------------------|----------------------------------|
| B.S. Civil Engineering Technology | WV Institute of Technology, 1992 |
| A.S. Surveying Technology | WV Institute of Technology, 1991 |
| A.S. Drafting and Design | WV Institute of Technology, 1991 |

REGISTRATIONS AND LICENSES

| | | |
|---------------------------------|---------------|---------------|
| Licensed Professional Surveyor: | West Virginia | (No.1001) |
| | Pennsylvania | (No.SU057606) |
| | Tennessee | (No.2140) |
| | Kentucky | (No.3666) |

DIRECT WORK EXPERIENCE AND PRIMARY RESPONSIBILITIES

| | |
|---|-----------------------------------|
| Triad Engineering, Inc., St. Albans, WV | Project Manager 2004 - Present |
| Woolpert LLP, St. Albans, WV | Project Manager 1996 - 2004 |
| Chapman Technical Group, St. Albans, WV | Project Surveyor 1994 - 1996 |
| Pray Construction Company, St. Albans, WV | Project Surveyor 1992 - 1994 |

CURRENT POSITION RESPONSIBILITIES

Mr. McCarty is currently the Project Manager of the Surveying Department for the St. Albans office of TRIAD. Having managed and completed a wide variety of projects including cadastral boundary surveys, boundary records research, conventional horizontal and vertical control networks, geodetic control surveys, topographic surveys, hydrographic surveys and photogrammetry control surveys. Mr. McCarty is proficient in the use of modern equipment including total stations, global positioning systems, automatic levels, digital levels and survey grade hydrographic equipment. Mr. McCarty is also well versed in the use of many forms of electronic data collection, data processing, and bringing it into drawing multiple CADD platforms for drawing development. Mr. McCarty is trained and proficient in the use of AutoDesk Land Development Desktop, Bentley MicroStation, Trimble Geomatics Office, Trimble Pathfinder Office, C & G Survey Software, Eagle Point, Microsoft Office Package including Word, Excel, Access, Outlook, PowerPoint and Project and the WordPerfect Office Suite of products. Mr. McCarty is also familiar with older surveying equipment, their history of usage, and how they apply when performing modern retracements.

PROJECT EXPERIENCE SUMMARY

West Virginia Department of Transportation, Division of Highways, Charleston, WV

Provided Surveying and Design Services on numerous projects from 1994 to Present including:

As a Project Surveyor, provided complete surveying services toward the development of Right of Way and Construction Plans for a 2.5 mile section of Appalachian Corridor L (U.S. Route 19) in Nicholas County. Services included field surveying, right of way, utilities verification and relocation and storm drainage

As a Project Manager, provided surveying and preliminary right of way services toward the development of Right of Way and Construction Plans for numerous highway and bridge projects for various consultants throughout West Virginia. Services have included field surveying, courthouse research, the completion of right of way questionnaires, utilities verification mapping and right of way parcel stakeout.

Abandoned Mine Lands, Statewide Contract, WV

As a Project Manager provided services for topographic mapping and civil design for various Abandoned Mine Land (AML) projects throughout West Virginia. Various types of AML projects include landslide correction include retaining wall design and site grading and drainage improvements, acid mine drainage collection and neutralization, water line upgrade and extensions, and various projects requiring site regrading and drainage upgrade. Work on these projects also included establishing horizontal and vertical control surveys for aerial photogrammetry mapping, baseline layout, referencing control points, generating check cross sections and site surveys including all physical and topographic features of each unique site.

Appalachian Corridor "L"/Muddelty to Powells Mountain West Virginia Department of Transportation

Right-of-way, utilities, drainage structures and soil borings, horizontal and vertical control, established monuments for construction. This project was a "fast-track" project with a nine-month turnaround from notice to proceed to the final tracing submittal.

Hatfield Bottom Boundary Survey - Mingo County, West Virginia

Boundary and Monumentation Survey, establish the boundary of 20 individual tracts in 15 separate locations and/or severance lines consisting of approximately 10 acres supplied electronic files in Intergraph DGN format, plats and descriptions and addressed, plotted, and computer encroachments. All work was done in conjunction with Huntington District Corp of Engineers Flood Plain buy out.

WVDOT-Corridor "L" - Nicholas County, West Virginia

Completed a Right-of-Way survey for the design stage of the widening of US Route 19 project from Muddelty to the crest of Powell's Mountain near Birch River, West Virginia.

Marlinton Local Protection Project, US Army Corps of Engineers-Huntington District, Marlinton, West Virginia

Performed and oversaw the location of all drainage utilities within the City of Marlinton including storm and sanitary sewers as a portion of the design of Marlinton LPP utilizing Trimble RTK equipment with a Hammerhead Pentop Computer

Logan County Development Corporation - Logan County, West Virginia

Conducted the necessary records research and corner reconnaissance for partition a 20 acre portion out of a larger 20,000 acre tract. Once the 20 acres was platted and monumented the tract was subdivided into smaller parcels for use as an industrial park.

Steven A. Clark, P.S.
Survey Supervisor

EDUCATION

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|------------------------------|-----------------------------|
| High School Diploma | East Bank High School, 1972 |
| Surveying and Mapping Course | Carver Career Center, 1972 |

REGISTRATIONS AND LICENSES

| | |
|---|------------|
| Licensed Professional Surveyor | WV, 2003 |
| Certified Black-Hat Coal Miner | WV, 1985 |
| Certified 40 Hr HAZWOPER (OSHA 29 CFR 1910.120) | OSHA, 2001 |

DIRECT WORK EXPERIENCE AND PRIMARY RESPONSIBILITIES

| | |
|---|---|
| Triad Engineering, Inc., St. Albans, WV | Survey Supervisor 1999 - Present |
| Triad Engineering, Inc., St. Albans, WV | Party Chief 1991 - 1999 |
| A. D. Whitaker Construction Co., Ashland, VA. | Party Chief 1990 - 1991 |
| H.A. Durdan & Assoc., Jacksonville Beach, FL. | Instrument man/Party Chief 1985 - 1990 |

PROFESSIONAL ORGANIZATIONS/ASSOCIATIONS

West Virginia Society of Professional Surveyors

CURRENT POSITION RESPONSIBILITIES

Mr. Clark is currently the Survey Supervisor for the St. Albans office of TRIAD. In this capacity, he is responsible for the supervision of the survey crews, overseeing the field work through drafting to the finished product delivered to the client, meeting with clients, and performing field work on large and complex projects. Mr. Clark is experienced in underground surveying, construction layout, boundary and road work surveying, photogrammetric and topographic surveying. Mr. Clark has supervised and/or performed survey work on various types of work including both underground and surface mine surveying for coal mine facilities, site surveys and construction layout for landfill facilities, site surveys and right of way plans for WVDOH highway projects, and site surveys and construction layout for site development projects. Mr. Clark has been involved in survey projects in several states including West Virginia, Florida, Virginia, and Ohio. In his supervisory capacity, Mr. Clark is responsible for schedules, project budgets, and the overall coordination of all survey projects. He works with all levels of engineering staff, the overall project team, and the project owner to produce a quality work product which satisfies all project requirements.

PROJECT EXPERIENCE SUMMARY

Airport Facilities, Various Airports throughout West Virginia

In both the supervisory and surveying role on these projects, Mr. Clark is responsible for the generation of site surveys and property boundary surveys to be used in the planning and design of airport facility expansion and upgrade. These surveys include locating all physical and topographic features, utility locations, storm drainage features, and property boundary lines. He works directly with our Senior Airport Engineer to obtain all necessary survey information required to generate a thorough and accurate existing conditions map. Steve has also supervised and performed construction layout on these projects that require extreme accuracy to meet the needs of the local airport operator and the Federal Aviation Association. Notable airport projects include:

Summersville Airport - Summersville, WV, Wood County Airport - Parkersburg, WV, Tri-State Airport - Cabell County, and Yeager Airport in Charleston, West Virginia.

WVDOT Highway Projects, Various Highway Engineering Consultants

Mr. Clark's expertise includes several WVDOT projects for various highway consulting engineering firms. He is responsible for the generation of site surveys and property boundary surveys to be used in highway planning and design. These surveys include locating all physical and topographic features, utility locations, storm drainage features, and property boundary lines. He is also responsible for supervising and coordinating other necessary work to perform these surveys including courthouse research and interaction with all existing property owners to complete property questionnaires for right of way acquisition. He has also supervised and performed construction layout on highway projects including bridge and structure layout. Some notable highway design projects include: Corridor D - Parkersburg, WV, I-64 Widening - Kanawha County, WV, Veterans Bridge - Clarksburg, WV, and Route 10 Upgrade - Logan County, WV, King Coal Highway - Mercer County, West Virginia. Notable construction layout projects include: Holden Bridge - Logan County, WV, Chelyan Bridge - Kanawha County, WV, Tug River Bridges - Mingo County, WV and various small bridge and highway construction projects throughout West Virginia.

Coal Mine Facilities, Various Facilities throughout West Virginia

Mr. Clark's experience on coal mine facilities consists of underground and surface mine surveying. Underground surveying consists of surveying mine projections for the production of coal, and keeping mine entry horizontal and vertical datum current. Surface mine surveying consists of surveying the coal pits for quantity and mapping purposes, mapping of the overburden monthly for coal production ratios, and assorted construction layout, topographic and GPS surveys. Mr. Clark's experience also entails the preparation of yearly state and federal mine maps for underground and surface mines, slurry impoundment dams, monthly quantity surveys of the clean coal stockpiles, and assisting in the mine permitting process. Notable mining companies include Mingo Logan Coal Company- Logan County, and Ashford Coal Company- Boone County.

Abandoned Mine Lands, Statewide Contract, WV

In his role as Chief Surveyor, Mr. Clark is responsible for generating site survey data including all physical and topographic features for various Abandoned Mine Land (AML) projects throughout West Virginia. Various types of AML projects include landslide correction include retaining wall design and site grading and drainage improvements, acid mine drainage collection and neutralization, water line upgrade and extensions, and various projects requiring site regrading and drainage upgrade. Work on these projects also included establishing horizontal and vertical control surveys for aerial photogrammetry mapping, baseline layout, referencing control points, generating check cross sections and site surveys including all physical and topographic features of each unique site.

Theodore E. Lemaster
Construction Manager

EDUCATION

South Point High School - 1986
Lawrence Co. Joint Vocational School- 1986

DIRECT WORK EXPERIENCE AND PRIMARY RESPONSIBILITIES

| | |
|--|--------------------------------------|
| Triad Engineering, Inc., St. Albans, WV | Construction Manager 2008-present |
| C. J. Hughes Construction Co. Huntington, WV | Crew Leader/Laborer 2006-2008 |
| Bill Enyart & Son's Construction Co. South Point, OH | Laborer 2004-2006 |
| Luther Construction Ashboro, NC | Foreman 2001-2004 |
| PSB Builders Knoxville, TN | Laborer 1999-2001 |

CURRENT POSITION RESPONSIBILITIES

Mr. Lemaster is currently a Construction Manager for the Civil/Utility Group in the St. Albans office of TRIAD. Mr. Lemaster brings over 11 years of construction experience. Duties in this role include construction of numerous water and wastewater projects, obtaining rights-of-way, surveying, supporting senior level engineers with the design and layout of water and wastewater systems, and Quality Assurance/Quality Control including the constructability of water and wastewater projects.

In addition to the above mentioned duties, Mr. Lemaster assists the project manager in project scheduling, coordination, budget management, client interaction, and project team coordination. Mr. Lemaster assists in preparation of proposals and estimates on larger, long term projects, and also assists in specification preparation, design, design drafting, construction inspection, quality control testing, shop drawing review, permitting and report preparation. Mr. Lemaster completes calculations, studies, plans, reports, and data analysis, all under the supervision of a licensed engineer. Mr. Lemaster assists in the coordinating of construction projects and in conducting interim and final inspections of construction projects to determine compliance with applicable laws, regulations, and specifications.

PROJECT EXPERIENCE SUMMARY

Branchland-Midkiff Public Service District, Lincoln County, West Virginia

Mr. Lemaster has provided *Branchland-Midkiff Public Service District* with preliminary field work such as layout and design, easement acquisition, and location of existing infrastructure. Mr. Lemaster is assisting in the completion of plans and specifications for Fourteenmile, Tenmile, and Miscellaneous Road waterline extensions. Fourteenmile Waterline Extension Project - Project consists of approximately 70,000 feet of 8-inch to 2-inch PVC C-900 water pipe, upgrade to an existing pump station, one new booster pump station, two 150,000 gallon water storage tanks, fire protection and other appurtenances. Tenmile Waterline Extension Project - Project consists of approximately 52,500 feet of 8-inch to 6-inch PVC C-900 water pipe, one new booster pump station, one 50,000 gallon water storage tanks, fire protection and other appurtenances. Miscellaneous Roads Waterline Extension Project - Project consists of approximately 55,000 feet of 8-inch to 6-inch PVC C-900 water pipe, two new hydropneumatic tanks and pump stations, and other appurtenances.

Town of Mason, Mason County, West Virginia

Mr. Lemaster has provided construction management services for the Town of Mason. Projects have included the location and mapping of existing utilities. Work consisted of various permitting activities, developing specifications, field visits, and computer design. Projects consist of bringing potable water and fire protection to the community.

Town of Mason Phase I Project – Project consists of 26,000 feet of 2-inch to 8-inch water pipe, four sampling stations, two railroad crossings, and fire protection and other appurtenances. Mr. Lemaster also assisted with the writing of the Operation and Maintenance Manual for the Town of Mason.

Town of Mason Phase II Project – Project consists of upgrading several feet of old and undersized water pipe throughout the Town with new 6 inch PVC C-900, connecting old lines to the new 8 inch water main, and fire protection and other appurtenances.

Town of Mason WWTP Upgrade, Mason County, West Virginia

Mr. Lemaster has provided construction management services for the Town of Mason Wastewater Treatment Plant and Manhole Rehabilitation Project. Work has consisted of multiple site visits and field inspection working directly with the DEP and plant staff to jointly obtain a working solution that fits their needs. Mr. Lemaster also completed manhole inspections as well as preformed smoke testing to map current system and identify Infiltration and Inflow locations. Mr. Lemaster assisted in writing the Manhole Inspection Report which included suggestions and recommendations to rehabilitate the existing wastewater collection system.

Veterans of Foreign Wars, Mason County, West Virginia

Mr. Lemaster has provided construction management services for the Stewart Johnson Veterans of Foreign Wars Post 9926 located in Mason County, WV. Project included exploring the feasibility and costs associated with installing a new sewer line with grinder pump station to provide sewer service to the patrons of the VFW. Proposed sewer line will be connected to the Town of Mason's existing collection system. Mr. Lemaster assisted in survey, layout, and design of the system.

Town of Matewan, Mingo County, West Virginia

Mr. Lemaster has provided construction management services for the Town of Matewan. Work consists of various permitting activities, culture and history research, cost estimates, developing specifications, field visits, design and QA/QC of the project. Project consisted of supplying residents with potable water and fire protection. Project included the design of approximately 6.5 miles of waterline and one storage tank.

Village of Racine, Meigs County, Ohio

Mr. Lemaster has provided construction management services for the Village of Racine. Mr. Lemaster assisted the project manager in locating and mapping existing infrastructure, plan and specification preparation, permitting, design, and layout. Duties included cost estimation, project scheduling, and client interaction. Project includes installation of waterlines throughout the Village of Racine.

PROJECT EXPERIENCE SUMMARY

Syracuse-Racine Regional Sewer District, Meigs County, Ohio

Mr. Lemaster has provided construction management services for the Syracuse-Racine Regional Sewer District. Duties included performing manhole inspections and writing the Inflow and Infiltration report. Mr. Lemaster provided field verification of existing equipment dimensions and devised a method to repipe the existing wastewater treatment plant to decrease downtime.

Gatling Coal Company, Mason County, West Virginia

Mr. Lemaster has provided construction management services for the Town of New Haven. Mr. Lemaster assisted in the completion of the as-builts for the sewer and water service project for the Gatling Coal Company.

Town of Camden on Gauley

Mr. Lemaster has provided construction management services for the Town of Camden on Gauley. Duties included preliminary layout and field research for the completion of the Preliminary Engineering and Environmental Report for the funding agencies.

Village of Cumberland, Gurnsey County, Ohio

Mr. Lemaster has provided construction management services for the Village of Cumberland. Projects have included assisting with the location and mapping of the existing utilities. Work consisted of various permitting activities, layout, and design. Mr. Lemaster has performed surveys as needed for the project, developed specifications, made field visits, and assisted in design.

Town of Belle, Kanawha County, West Virginia

Mr. Lemaster has provided construction management service for the Town of Belle. Duties included Quality Analysis and Quality Control of the final Construction Package and Bid Documents.

Town of Milton West Virginia, Bill Enyart & Sons Construction Co.

Mr. Lemaster staked out and installed sewer lines and appurtenances, developed profiles and cutsheets, ran levels, and miscellaneous construction activities pertinent to the project. Mr. Lemaster was responsible for providing the necessary tools and equipment to the members of the construction crew as well as performing daily maintenance to the equipment.

City of Huntington West Virginia, C. J. Hughes Construction Co.

Mr. Lemaster performed construction layout for the 9TH Street Streetscape Project from demolition to reconstruction. Duties included determining subgrade elevations for street, sidewalk, and parking island removal, as well as construction layout for curb and sidewalk location and finish grades. Mr. Lemaster was also responsible for fabricating method of forming the compound angles and slopes for curbing on the project.

Boyd County Kentucky, C. J. Hughes Construction Co.

Mr. Lemaster staked out and installed sewer lines and necessary appurtenances to include manholes, ran levels, and miscellaneous construction activities pertinent to the project. Mr. Lemaster was responsible for providing the necessary tools and equipment to the members of the construction crew as well as performing daily maintenance to the equipment.

Various Construction Jobs located throughout North Carolina, South Carolina, Eastern Tennessee, Southern Virginia, Luther Construction, Ashboro NC.

Mr. Lemaster was responsible for all on-site aspects of construction projects which included steel building construction. Projects were located in North Carolina, South Carolina, Eastern Tennessee, and Southern Virginia. Duties Included maintaining the safety of work crews and visitors, foundation layout, building erection, quality of craftsmanship, and client satisfaction.

William T. Brooks, Jr.
Construction Inspector

EDUCATION

Marshall University
Fairmont State University

REGISTRATIONS / CERTIFICATIONS

American Concrete Institute: Concrete Field Quality Control, Grade 1 (1991)
WVDOT Certified Portland Cement Concrete Technician (1992)
WVDOT Certified Portland Cement Concrete Inspector (1998)
WVDOT Certified Aggregate Technician (1994)
WVDOT Certified Compaction Technician (1986)
WVDOT Certified Bituminous Concrete Technician (1991)
WVDOT Certified Hot-Mix Asphalt Inspector (1999)
Fairmont State University – TRET, Level III, Certification #2332 (2008)
National Institute for Certification in Engineering Technologies – Construction Materials Testing for
Concrete, Soils, Asphalt (2001)
Construction QA of Geosynthetic Products for Environmental Control Facilities (1994)
US Army Corps of Engineers: Construction Quality Management for Contractors (2001)
Troxler Electronic Laboratories, Inc: Nuclear Gauge Safety Training (1981)
Troxler Electronic Laboratories, Inc: Troxler Radiation Safety Officer (1993)
Firstline Safety Management: OSHA Subpart L - Scaffolding (1998)
Firstline Safety Management: OSHA Subpart P – Excavation (1998)
Hazardous Waste Operations: OSHA Section 1910 Part 120(1988)
Hazardous Waste Operations: OSHA Section 1910 Part 120 – Supervisor Training (1991)
Hazardous Waste Operations: OSHA Section 1910 Part 120 Annual Refreshers (1991 – 2002)
Regulatory Training Center: OSHA Section 1926.650 Subpart P (2010)

DIRECT WORK EXPERIENCE AND PRIMARY RESPONSIBILITIES

| | |
|--|---|
| Triad Engineering, Inc. Scott Depot, WV | Construction Inspector 2007 – Present |
| Triad Engineering, Inc. Scott Depot, WV | Construction Inspector / Senior Engineering Technician 1997 - 2007 |
| Triad Engineering, Inc. Logan, WV | Field and Lab Services Manager 1995 – 1997 |
| Triad Engineering, Inc. Scott Depot, WV | Assistant Field Services Manager 1992 – 1995 |
| Triad Engineering, Inc. Scott Depot, WV | Senior Engineering Technician 1983 – 1992 |
| Mid-Eastern Geotech Huntington, WV | Senior Engineering Technician 1981 – 1982 |
| Connors Steel Huntington, WV | Chemistry Lab Technician 1979 – 1981 |

DIRECT WORK EXPERIENCE AND PRIMARY RESPONSIBILITIES (Continued)

Charleston Construction
St. Albans, WV

Concrete Batch Plant Technician
1977 – 1979

Donald F. Connelly, Co.
Eighty-Four, PA

Concrete Quality Control Technician
1973 – 1977

CURRENT POSITION RESPONSIBILITIES

Mr. Brooks observes work in progress to ensure conformance with specifications. He examines workmanship of finished installations for conformity to standards and inspects equipment operation and material on the job site. He interprets specifications as related to materials and workmanship and assumes responsibility of administering portions of the contract, which includes preparing change orders and pay requests. He receives occasional supervision from Project Manager or QC Services Manager. He may be assigned to work independently on a project with some complex features. He has demonstrated familiarity with various common job site conditions, problems encountered in assigned territory, and proper procedures for rectification and serves as owner/contractor/engineer liaison. He follows all safety procedures and maintains a driving record free of specific violations.

PROJECT EXPERIENCE SUMMARY

Mr. Brooks has performed Quality Control Inspection and Testing on numerous Building, Highway, Bridge and Landfill projects for Industrial/Commercial and Utility construction. He has provided these services throughout our service area of operations, as indicated by the following representative listing:

HIGHWAY/BRIDGE PROJECTS

Route 119 4-Lane Upgrade, Charleston to Williamson, WV
I-64, (New 4-Lane Construction) Sandstone to Sam Black Church
I-79, (New 4-Lane Construction) Mink Shoals
6th Street Bridge, Huntington, WV crossing the Ohio River to OH
Krout's Creek Bridge, I-64 at Huntington, WV
Holden Bridge, Route 119 at Holden, WV
Mud Fork Bridge, Route 119 at Logan, WV
Darnell Road Bridge, I-64 at Huntington, WV
Route 35 (New 4-Lane Construction) I-64 Exit #40 to Buffalo Bridge, WV

BUILDING CONSTRUCTION AND SITE DEVELOPMENT

Marriott Hotel, Charleston, WV
South Ridge Center, South Charleston, WV
Cabell Huntington Hospital Addition(s), Huntington, WV
Kinetic Park, Phase I: Site Development, Huntington, WV
Huntington Main Post Office, Huntington, WV
Marshall University (numerous buildings/sports facilities), Huntington, WV

INDUSTRIAL SITES

Consol Buchananon #1 Consol Mine (New Construction), Oakwood, VA
East Beckley WWTP (New Construction), Beckley, WV
Bradley WWTP (New Construction), Bradley, WV
Yeager Airport Concrete Pavement Upgrades, Charleston, WV
Yeager Airport – Air National Guard Concrete Pavement Upgrades, Charleston, WV

PROJECT EXPERIENCE SUMMARY

Goff Mountain Landfill Upgrades/Closure, Institute, WV
Big Run Landfill Expansion, Ashland, KY
Union-Rome WWTP (New Construction), Chesapeake, OH

UTILITY CONSTRUCTION

Mason Water System Improvements, Phase 1, Mason, WV
Belle Wastewater System Improvements, Belle, WV
Branchland-Midkiff PSD 14 Mile Water Extention and Storage Tank, Branchland, WV
Kinetic Park, Phase II: Utilities (Storm, Water, Sewer, Electric and Roadway Pavement)

PAUL D. MARSHALL ARCHITECTS AND ENGINEERS, INC.

DAVID M. MARSHALL, AIA
President, Principal Architect
Paul D. Marshall, Architects and Engineers Inc.

B.S., Construction Management, West Virginia State College, 1975
Registered Architect, West Virginia, #2377, 1989

David M. Marshall, AIA, served in several key positions at PDM Associates, Inc. since joining the firm in 1987. Since December 1998, he served as President and Project Architect, serving as Lead Architect on PDM Associates' projects and manages the day-to-day operations of the company.

Mr. Marshall first joined PDM Associates in 1979. His initial responsibilities included design, design development, working drawings, cartography, and contract administration for the firm's projects. In 1982, he was appointed by the Mayor of Charleston, West Virginia to serve as Building Commissioner for the City. As such, he supervised major commercial developments such as the Charleston Town Center, Laidley Tower, United Bank Center, and major residential developments. He also fulfilled the duties of office manager, building inspection coordinator, and administrative consultant.

After his tenure with the City ended, Mr. Marshall rejoined PDM Associates in 1987 and resumed his responsibilities of design, design development, cartography, working drawings, contract administration. He has remained with the firm ever since.

Mr. Marshall is a member of the American Institute of Architects, Building Officials and Code Administrators International (BOCA), the American Institute of Architects Historic Resources Committee, the Kanawha Valley Historical Society, the East-End Historic District Review Board, and the West Virginia State Capitol Building Commission. He serves as Architectural Advisor of the Charleston Urban Renewal Authority's Village District Review Board.

His project experience includes:

- West Virginia Southern Community and Technical College, Allied Health and Technology Center, Logan, WV. A five-story lab and classroom building scheduled for construction in 2005.
- Capitol Market, Smith St., Charleston, WV. A circa 1915 railroad depot adapt ably re-used and restored for use as a farmer's market facility for the WV Department of Agriculture.
- Shoenbaum Family Enrichment Center, Charleston, WV. A circa 1940 heavy equipment sales and service facility in the art deco style adapt ably re-used as a human services facility.
- Restoration and adaptive use of the Arthurdale Community Center in Arthurdale, WV.
- Marlinton Opera House (1902), Marlinton, WV. Restoration of concrete and wood opera house for the Pocohontas County Historical Society.
- Design of a new South Plaza for the West Virginia State Capitol Building in Charleston, WV as originally conceived by master architect Cass Gilbert

- Feasibility study of adaptive use of Sunrise Mansion, the historic home of former Governor William MacCorkle, in Charleston, WV.
- Restoration and adaptation of Capitol Farmer's Market, early-twentieth-century railway freight depot, for use as an indoor specialty market on behalf of the City of Charleston, WV. The project also entailed the conversion of the railroad yard into an outdoor farmer's market with customer parking.
- Putnam/Hauser House, Blennerhassett Island State Park, WV. Relocation of eighteenth-century, original homestead of the Putnam family to Blennerhassett Island, where it has been preserved as an interpretive historic site.
- McFarland/Hubbard House, Charleston, WV. Consulting services—including production of measured drawings—for adaptive-use feasibility study of historic 1834 house.
- Charleston Municipal Auditorium, Charleston, WV. National Register of Historic Places nomination for 1939, art-deco performing hall for Kanawha Valley Historical & Preservation Society.
- West Virginia Governor's Mansion, Charleston, WV. Design of retrofit railing for 1928 governor's mansion originally designed by architect Walter F. Martens.

PAUL D. MARSHALL ARCHITECTS AND ENGINEERS, INC.

MR. KYLE BRENT SPRADLING

Chief Executive Officer

University of Charleston, BA Fine Arts, Military Training at The University of Illinois, Champagne-Urbana, in Meteorology.

Mr. Spradling has 35 years of experience in design and construction coordination.

Began work experience with US Air Force as a military weather observer, resources research for Pond Fork Oil and Gas Co., then later as project coordination for Irving Bowman and Associates/Walter Gropius with WV State Park development.

Project coordination for WV State and Federal projects for Appalachian Engineers, Inc. including WV State Capitol renovations for air conditioning, electrical and communications upgrading, and structural corrections to the Dome area. Later work for A/E Associates, Inc. included US Post Offices renovation projects, assistance with emergency infrastructure construction after the Buffalo Creek disaster, and adaptive uses for strip mine reclamation, which included the basics for the original strip mining permit resulting in creation of the Logan, WV Airport.

An original founder of the Appalachian Design Group, Inc., in March of 1984, coordinating correctional and developmental work for State owned facilities, historical landmarks, colleges and universities.

Mr. Spradling became Chief Executive Officer of Paul D. Marshall Architects and Engineers, Inc. upon the combination of resources with Appalachian Design Group, Inc., in January of 2007. He continues to provide training and consulting services for fringe technologies which are important to our completion of special projects such as: Archival Research, Solid State Lighting, Communications and Data Distribution, High Definition Aerial Imaging & Reconnaissance, and coordination of special needs requests from our clients.

Representative Projects:

(Projects marked "*" were performed as design consultants to Paul D. Marshall Architects and Engineers, Inc.)

* Carriage House Historical Adaptive Restoration, Fairmont, WV - Air conditioning, heating, and electrical upgrade and restoration of an historic structure to be utilized as a community center.

* Master Plan for Charleston, WV Downtown Renaissance - Design of period street lighting, power distribution, and utilities relocations. In addition to the original Downtown Renaissance, provided the same infrastructure services for several later phases of the "Streetscape" improvements for Charleston, including the section from the State Capitol, down Washington Street.

Potomac State College of WVU, Keyser, WV - Corrective design and retrofit of campus lighting system. This project was a rescue of a failed owner-designed and bid installation.

Town of Keyser, WV, Town of Buckhannon, WV, and Town of Marlinton, WV - Streetscape lighting, lighting power systems, and utilities relocations for the local Mainstreet programs.

Reynolds Hall, Potomac State College, Keyser, WV - Air conditioning, heating, and electrical entrance retrofit for historical structure. Project included installation of new telecommunications and entertainment infrastructure.

* Putnam-Houser House Restoration, Blennerhassett Island, Parkersburg, WV - Design of hidden air conditioning and heating systems for preservation of historical structure.

* Graceland Mansion Historical Adaptive Restoration, Elkins, WV - Air conditioning, heating, electrical, communications and entertainment systems upgrade of an historical structure for use as a full service hotel and restaurant.

* Robert C. Byrd Conference Center, Elkins, WV - Complete remodeling of an unused residence hall to modern hospitality standards, including addition of conference rooms, adjacent to the historic Graceland Mansion.

WVU, Design of Concealed Multi-Campus Student TV Cable Entertainment System, Morgantown, WV - Design and field supervision of installation of a totally concealed TV cable system serving residence halls, and other selected university buildings on both Downtown and Evansdale campuses. Project includes a concealed earth station, laser-driven fiber optic distribution to buildings on both campuses, and includes 74 basic channels plus 12 premium movie channels for student resident use. Nearly half of the buildings receiving the installation on the Downtown Morgantown Campus are of historical status. System installation contained spare capacity for HDTV, data distribution, telecommunication, and surveillance capabilities.

WVU Byrd Collection Area Colson Hall, Morgantown, WV - investigation and correction for moisture problems destroying the collection, included corrective design and supervised fabrication and installation of corrections by Owner's employees. This was a sensitive project, both in terms of the historical status of Colson Hall, and the historical content of the area.

WVU Silo instability and boiler house corrective modifications, Downtown Morgantown Campus, WV

Pinecrest State Hospital, New Campus High Voltage Distribution, Beckley, WV - Phased replacement of antiquated high voltage campus distribution with a new system serving buildings, with new installations of unit substation transformers and entrances for each building on a phased and budgeted basis.

* St George Greek Orthodox Church Sanctuary Expansion, Charleston, WV - Design of hidden air conditioning and heating to exceed quiet recording studio sound requirements for an exquisite restoration of an historic sanctuary. This project included electrical service upgrading, along with additions to other parts of the church complex.

WVU Institute of Technology Campus Wide Telecommunications System, Montgomery, WV - Complete new installation of a telecommunications system in all campus buildings. This investigative and resulting construction project was entirely financed with savings in service costs, with a large ongoing resultant net savings to the institution. This project was financed through leased construction.

WV higher Education Policy Commission, Charleston, WV - On site assistance at Glenville State College for quality control for campus-wide physical plant inventory.

West Virginia State University, Institute, WV - Provided quick response aerial photography for campus and surrounding area mapping program for use in master planning and expansion of the University

PAUL D. MARSHALL ARCHITECTS AND ENGINEERS, INC.

JOHN L. OAKS
Corporate Director
Architectural Technician

Associate Degree, Drafting and Design Engineering Technology, West Virginia University Institute of Technology, 1997

John Oaks is Paul D. Marshall Architects & Engineers' expert computer draftsman. He is proficient in state-of-the-art, three-dimensional rendering, graphic design, and presentation design. He is responsible for total project production for Paul D. Marshall Architects & Engineers, an architectural firm specializing in historic restoration and renovation, as well as adaptive re-use of existing structures.

Mr. Oaks joined Paul D. Marshall Architects & Engineers in 1997. Before joining the architectural firm, he worked as a tutor at West Virginia University Institute of Technology in Montgomery, West Virginia, where he earned his Associate's Degree in drafting and design-engineering technology. Before enrolling at WVU Tech, he was employed as a carpenter.

His project experience at PDM Associates includes the following:

- West Virginia Southern Community and Technical College, allied health and technology center, Logan, WV. A five-story lab and classroom building scheduled for construction in 2005.
- A New Residential Community for Roaring River Development. Amenities to include community design guidelines, grand lodge with indoor/outdoor pool, base camp, entrance gates, mail pavilions, observation platforms, and new residences.
- A New Residence for the Greenbrier Sporting Club. Design and site development at the Summit Village community for the Allegheny Group.
- Capitol Market, Smith St., Charleston, WV. A circa 1915 railroad depot adapt ably re-used and restored for use as a farmer's market facility for the WV Department of Agriculture.
- Shoenbaum Family Enrichment Center, Charleston, WV. A circa 1940 heavy equipment sales and service facility in the art deco style adapt ably re-used as a human services facility.
- Sunrise, Charleston, WV. A circa 1905 mansion, the former home to Governor MacCorkle, it has been restored and re-used as a law office.
- The Governor's Mansion, State Capitol Complex, Charleston, WV. A renovation and restoration of West Virginia's state residence involving all new infrastructure, interior renovations and restorations, new slate roofing, etc.
- The Arcade, Charleston, WV. For McCabe-Henley developers, an in-depth historical survey and physical documentation of two-story, nineteenth-century, glass-roofed arcade building in downtown Charleston.
- The Kanawha Hotel, Charleston, WV. For McCabe-Henley developers, a historical survey and existing conditions report of an early twentieth-century downtown hotel building.

- Putnam/Hauser House, Blennerhassett Island State Park, WV. Relocation of eighteenth-century, original homestead of the Putnam family to Blennerhassett Island, where it has been preserved as an interpretive historic site.
- Ironton Catholic Churches, Ironton, OH. Consulting services for facade restoration of two early-twentieth-century churches and a high school building, with a restoration plan report.
- Thomas Jefferson, Jr. High School (original Charleston High School), Charleston, WV. Renovation and adaptive use of 1920s high school building for apartments and condominiums.
- Hughes River Presbyterian Church, Cairo, WV. Consulting for repairs to floor structure of 1870s wood church building
- McCrory's Building, Charleston, WV. Restoration and adaptive use of 1920s, terra-cotta façade in downtown Charleston.
- McFarland/Hubbard House, Charleston, WV. Consulting services—including production of measured drawings—for adaptive-use feasibility study of historic 1834 house.
- McFarland/Hubbard House, Charleston, WV. Stabilization and restoration of 1834 house for West Virginia Humanities Council.
- Coyle & Richardson Building, Charleston, WV. Comprehensive restoration and renovation of 1907 Coyle and Richardson dry goods store and offices built in the classical-formalism style. Facilities now serve as the corporate offices of AMFM Corporation.
- Charleston Municipal Auditorium, Charleston, WV. National Register of Historic Places nomination for 1939, art-deco performing hall for Kanawha Valley Historical & Preservation Society.
- West Virginia Governor's Mansion, Charleston, WV. Design of retrofit railing for 1928 governor's mansion originally designed by architect Walter F. Martens.
- Ort Building, Charleston, WV. National Register of Historic Places nomination for 1898 brick commercial building to become offices for PDM Associates.
- Maple Terrace, Charleston, WV. Renovation and restoration of 12 early-twentieth-century townhouses and an apartment building to serve as single-family residences.
- L&S Building, Charleston, WV. Restoration of façade of 1903, Italianate-style Loenstein Hardware Building to house the law offices of Flaherty, Sensibaugh & Bonasso.
- Scott Brothers Drug Store, Charleston, WV. Restoration and renovation of 1896 Victorian building to house the law firm of Bailey and Glasser.

MANAGEMENT & STAFFING CAPABILITIES

Engineers—The landscape architect and engineers who will provide services for this project are registered professionals in West Virginia and are in good standing.

Professional Liability Insurance— Triad Engineering, Inc. carries Errors and Omissions Professional Liability Insurance through Architects and Engineers Insurance Company of Winchester, Virginia. Our coverage is \$ 2,000,000.00.

Experience and Expertise—We believe that the information under the *Experience* Tab will clearly show that Triad Engineering has extensive experience in landscape architecture and civil site projects. After examining the materials provided, we think you will agree that those assigned to this project without a doubt have the expertise necessary to complete this project.

Capacity to Perform Project Scope—It is highly unlikely that Triad will need to subcontract out any portion of this project. We provide a full range of services in house including designing, surveying, drilling and testing, construction monitoring and right of way acquisition. As detailed later under this tab, our company currently has a staff of approximately 225 personnel located in six offices. Your project will be accomplished by the capable staff of the nearby Saint Albans/Scott Depot, WV, Office. However, should the need arise, we can call upon the resources of any of our other five offices.

MANAGEMENT & STAFFING CAPABILITIES

Company Background

TRIAD ENGINEERING, INC. (TRIAD) is a regional consulting firm based in West Virginia that provides professional services in the areas of civil, water and wastewater, environmental, mining, geotechnical and chemical engineering; site assessment; planning and landscape architecture; geology and hydrogeology; surveying and mapping; construction inspection; and related services. Our firm has provided services on many thousands of projects of varying size and complexity since its founding in Morgantown, West Virginia in 1975.

Through our over 35 years of service in West Virginia and surrounding states, both the number and complexity of these projects have grown. Our clients include Federal and State governmental agencies, mining and industrial corporations, contractors, architects, engineers, attorneys, developers, and commercial organizations.

Facilities and equipment available to support our staff have continued to evolve through the years to adapt to the changing needs of the market. Each of our offices contains computer facilities that are utilized for hydrogeologic evaluations, risk assessment, stability analyses, survey data reduction, mapping and site design. Our computer based drafting and reproduction facilities are used to develop detailed site plans, construction details, and other graphic documentation as required for our projects.

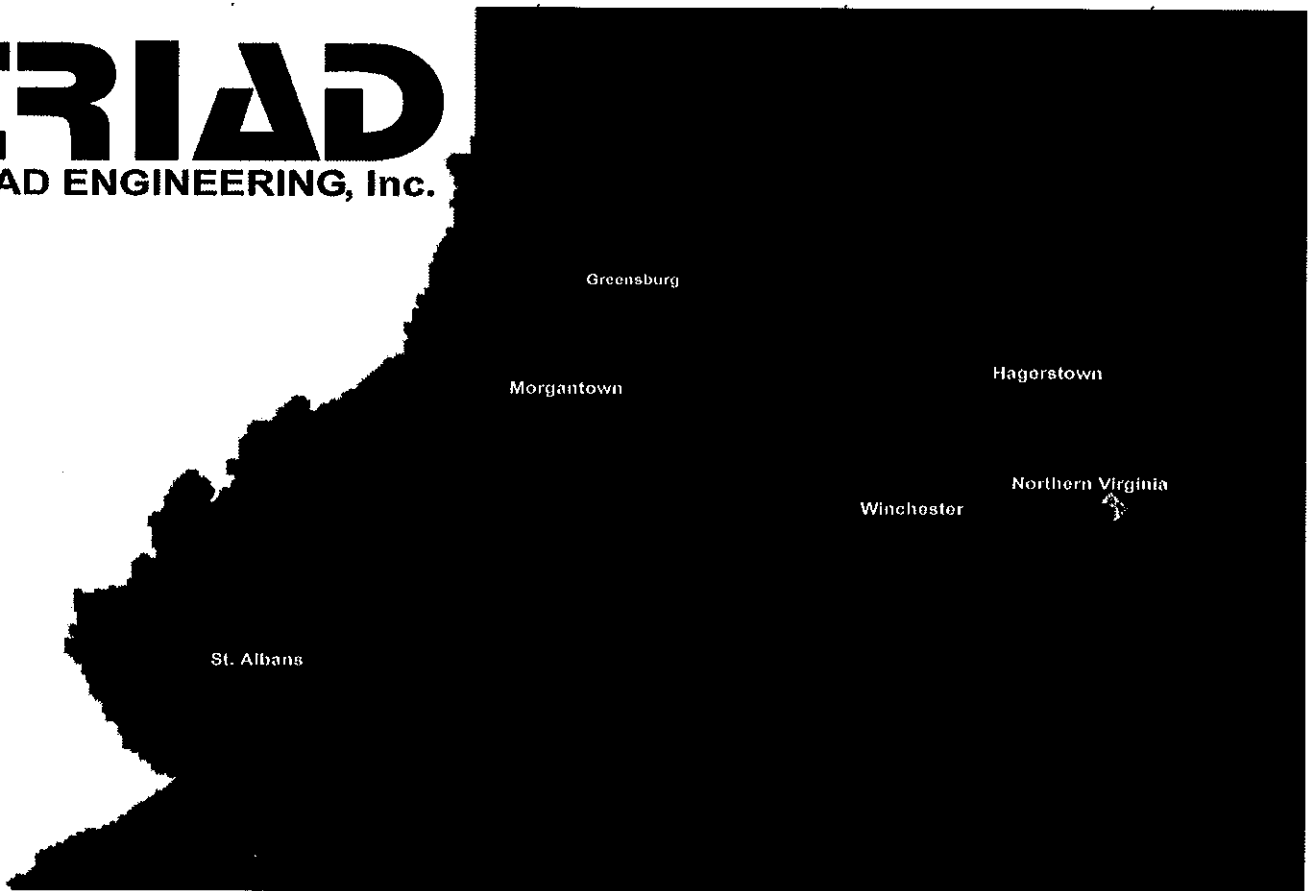
TRIAD currently includes a staff of approximately 225 personnel located in six offices. Our personnel include chemical, civil, environmental, geotechnical and mining engineers, as well as geologists and hydrogeologists, biologists, chemists, environmental scientists, planners, landscape architects, natural resource specialists, regulatory compliance specialists, permitting engineers, risk assessors and health and safety specialists.

Our technical support and administrative staff includes designers, draftsmen, surveyors, technicians, drillers, construction inspectors and clerical personnel. Most of our professional and technical staff have been with the company for many years. We pride ourselves on a very low turnover rate, which adds to continuity and enhances the level of productivity and experience afforded by TRIAD.

TRIAD has assembled a team of individuals with broad experience to bring an unmatched knowledge and expertise to your project. Professional staff assigned to this project will possess the necessary qualifications in their particular areas of expertise, and will work with you to ensure success.

TRIAD

TRIAD ENGINEERING, Inc.



St. Albans

4980 Teays Valley Road
Scott Depot, WV 25560
304-755-0721 Phone
304-755-1880 Fax

Pittsburgh

RD #7 Box 148C
P.O. Box 1829
Greensburg, PA 15601
724-832-9870 Phone
724-832-9890 Fax

Morgantown

219 Hartman Run Road
P.O. Box 889
Morgantown, WV 26507
304-296-2562 Phone
304-296-8739 Fax

Hagerstown

1023 Maryland Ave.
P.O. Box 228
Hagerstown, MD 21740
301-797-6400 Phone
301-797-2424 Fax

Northern Virginia

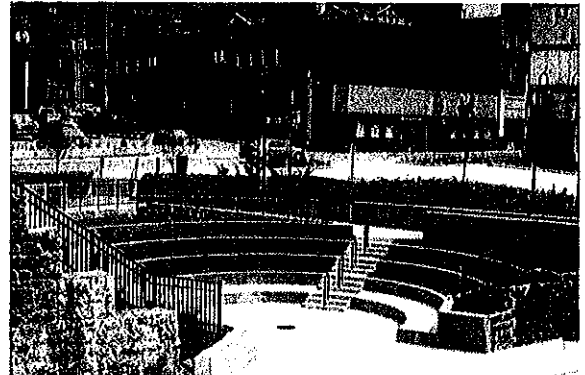
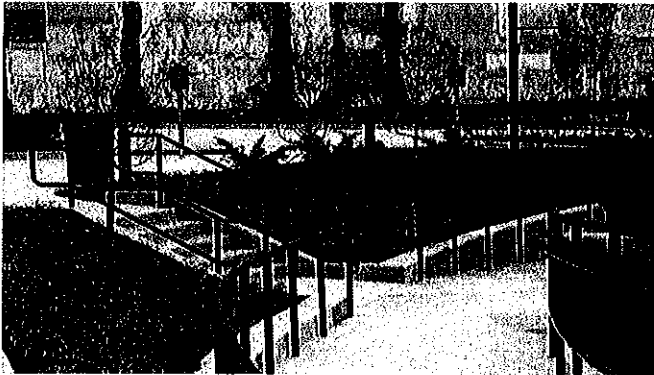
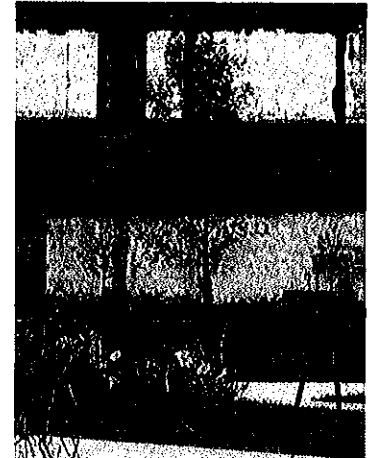
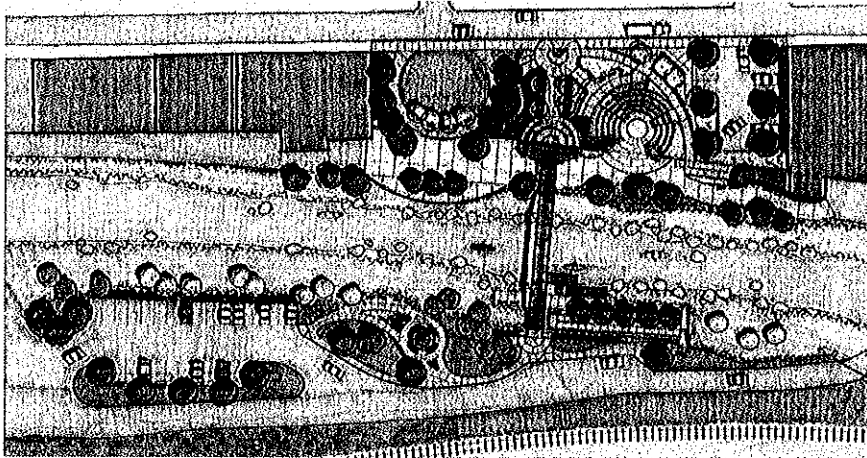
21641 Beaumeade Circle
Suite 300
Ashburn, VA 20147
703-729-3456 Phone
703-729-3459 Fax

Winchester

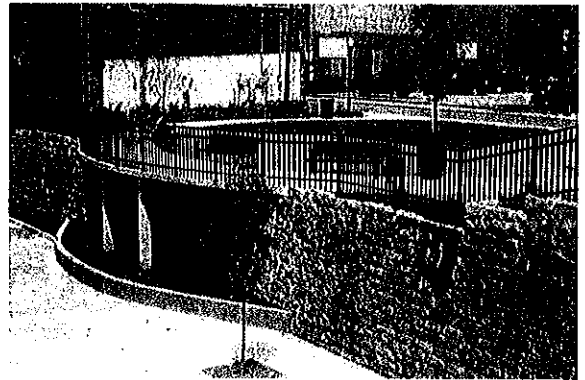
200 Aviation Drive
P.O. Box 2397
Winchester, VA 22604
540-667-9300 Phone
540-667-2260 Fax



Welch River Front Park Welch, West Virginia



Triad Engineering, Inc. was selected by the City of Welch to design a park and streetscape improvements to a downtown area that is adjacent to the Tug Fork River. Services included the preparation of a master plan, construction documents, and construction administration. The park included extensive landscape improvements, lighting upgrades, concrete sidewalks with clay pavers, street furniture, parking improvements and the creation of an amphitheater space that connected the lower level and the upper level with a ADA ramps and steps. The space was developed to create a open space that could be used for community events as well as to create a greatly needed open space in the downtown area.

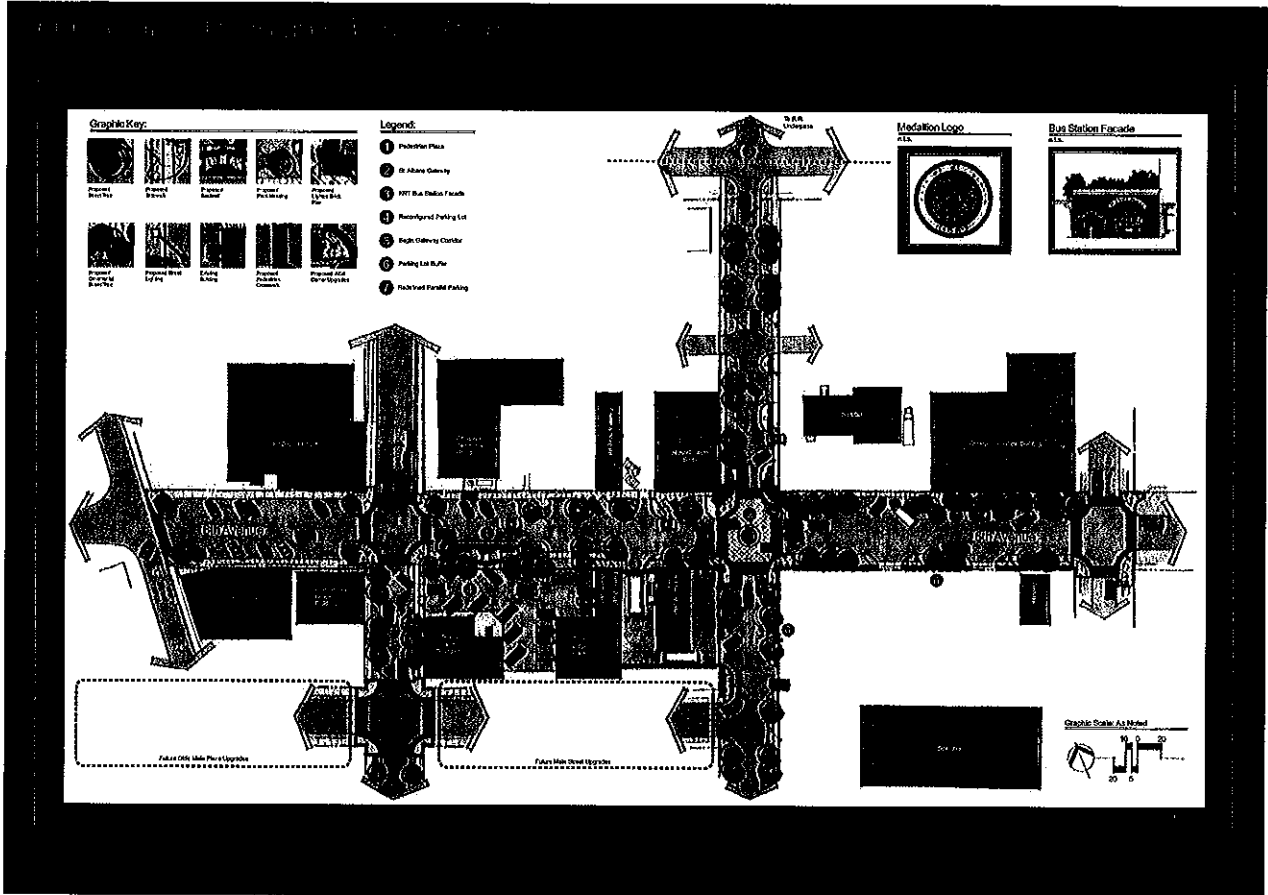


Client
City of Welch
Welch, West Virginia
304.436.3113





6th Avenue Streetscape Master Plan St. Albans, West Virginia

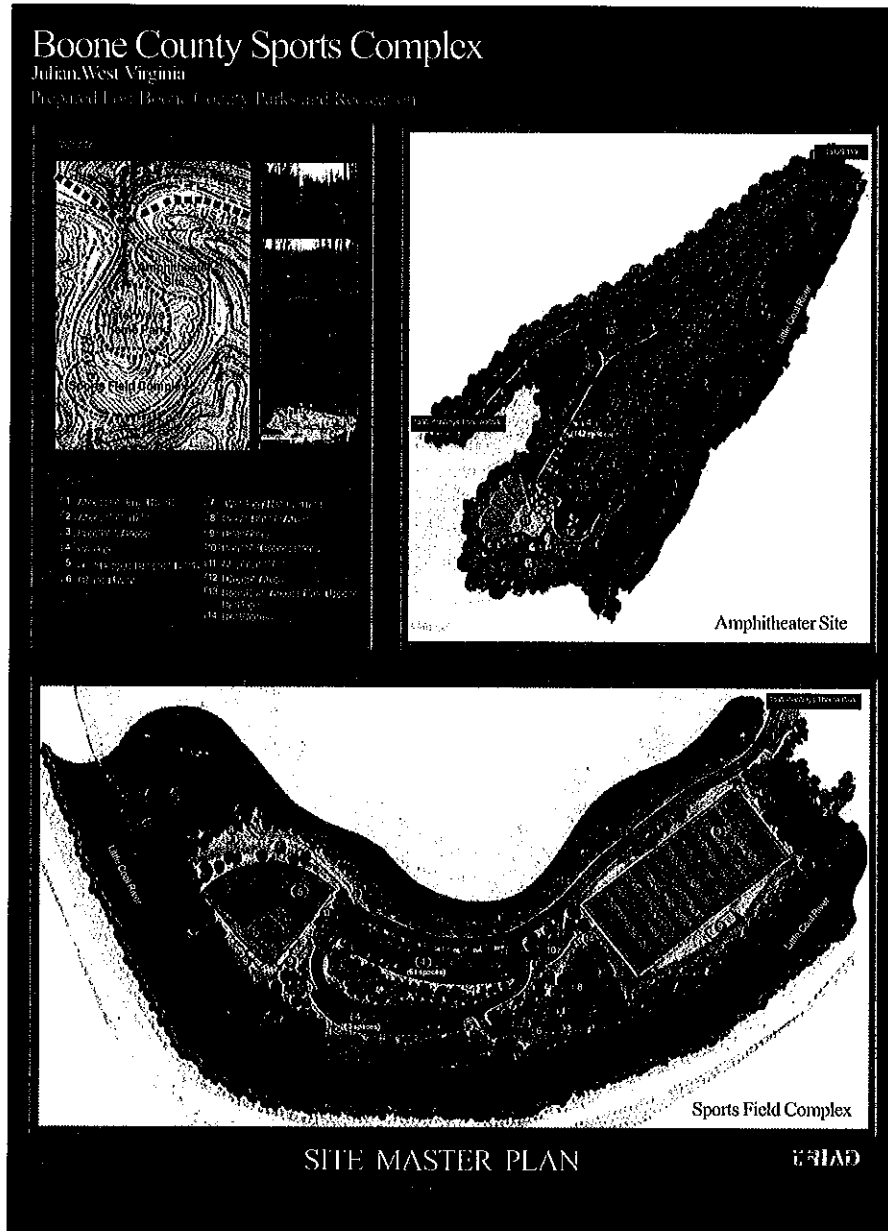


Triad Engineering, Inc. was recently selected by the city of St. Albans to design the new gateway and streetscape improvements to the downtown area. Services included the preparation of a master plan, construction documents, and construction administration. The streetscape included parking improvements, landscape improvements, reduction of pedestrian and vehicular interaction, period lighting upgrades, concrete sidewalks with clay pavers, street furniture, and the creation of a gateway sequence into the downtown area.

Client: The City of St Albans, WV., 1.304.722.0065



Boone County Sports Complex Julian, WV

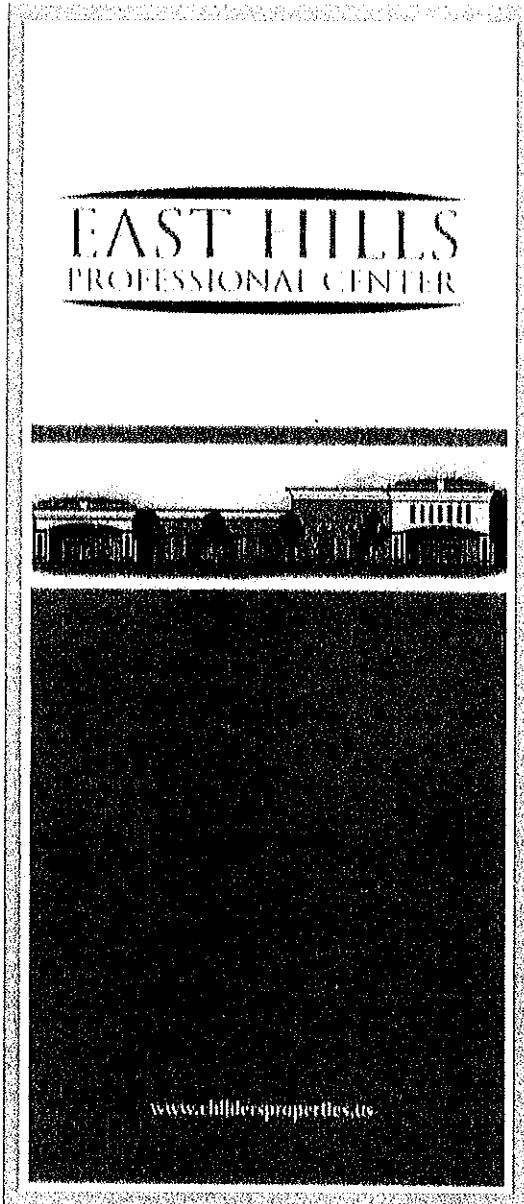


Triad prepared a master plan and construction documents for this 20 acre site. The project involved the planning of a multipurpose field, baseball field, walking trail, canoe livery, restroom facility and an amphitheater. A detailed set of construction documents was completed upon approval of the master plan. The fact that most of this project was situated in the flood plain also presented many design and permitting challenges. We maximized the use of the floodplain while avoiding any increase in the flood risks.





**East Hills Professional Center
Huntington, West Virginia**



TRIAD provided full civil engineering services including site development design for this project. The project included the construction and site development for commercial use of some 12 acres. The development consisted of the complete remodeling of interior and exteriors of a 186,000 square foot structure, the design of 2 stand alone structures as well as the redesign and improvement of site drainage and parking. Triad design 5 large retaining walls to greatly increase the onsite parking. TRIAD worked with a project team consisting of the architect, developer and future tenants/owners to create a complete comprehensive set of construction drawings. Site features included concrete and asphalt paving, sidewalks, curb and gutter, site utility routing and drainage structures.

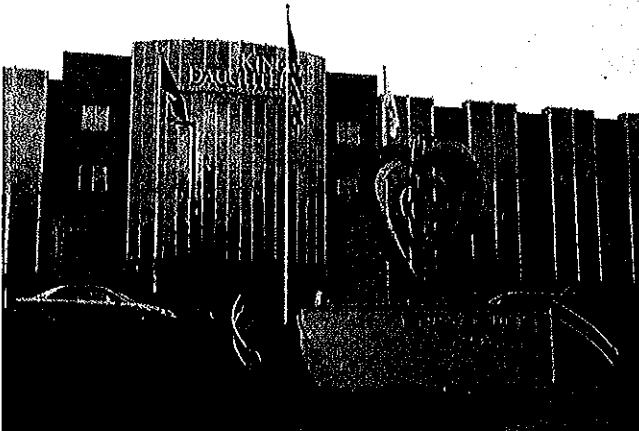
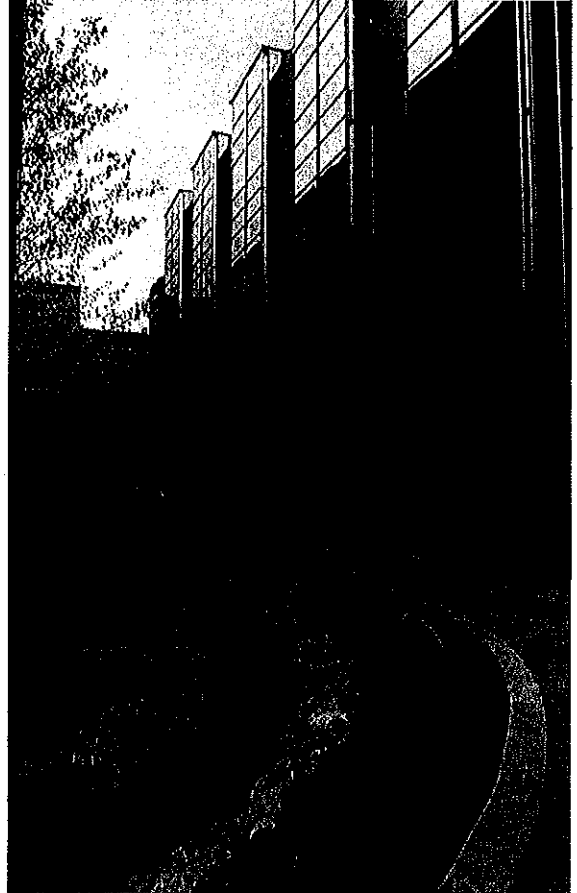
As with most site development projects, this project involved optimizing the use of available property to accommodate the commercial development and associated parking and access drives.

Services provided by Triad consisted of field surveying to generate a map of existing site and topographic features, an ALTA survey, a geotechnical investigation to determine subsurface conditions to facilitate design of the building foundations and associated site work, design of all site grading and drainage features, and preparation of West Virginia Division of Highways (WVDOH) encroachment permit and West Virginia DEP construction storm water permits

Client: East Hills Development, LLC. #, West Virginia 25705 (304) 523-6515



**King's Daughters Medical Center
Ashland, Kentucky**



Triad provided site civil engineering services as well as landscape architectural services for the King's Daughters Medical Center Campus in Ashland, Kentucky. Triad worked with a project team headed by the Architect and the owner, to develop a complete comprehensive set of construction drawings for 4 new buildings sites. The projects involved optimizing the available property to accommodate the new buildings and parking areas and the improvement of pedestrian and vehicular circulation. The projects included the development of pedestrian spaces, for the patients and visitors which features plant massings, water features, sculptures and other site amenities.

Services provided by Triad included preparation of construction documents and details including site grading and drainage features, landscaping to compliment the architecture of the building.

Owner :
Kings Daughter Medical Center
Howard Harrison, Director of Facilities





**The Parks
Huntington, West Virginia**



TRIAD provided full civil engineering services including site development design for this project. The project consisted of the construction and site development for mixed residential and commercial use. The residential development consisted of a 6 acre site including 7 buildings with a total of 52 housing units. The commercial development consisted of an additional 6 acres for a flex space warehouse and future retail out parcels. TRIAD worked with a project team consisting of the architect and developer, to develop a complete comprehensive set of construction drawings. Site features included concrete and asphalt paving, sidewalks, curb and gutter, site utility routing and drainage structures.

As with most site development projects, this project involved optimizing the use of available property to accommodate the housing facility and associated parking and access drives.

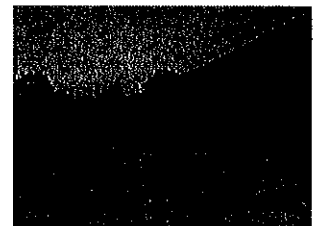
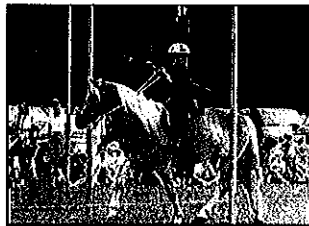
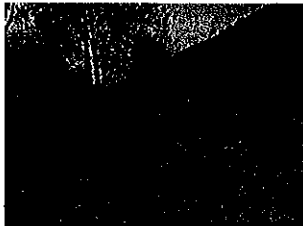
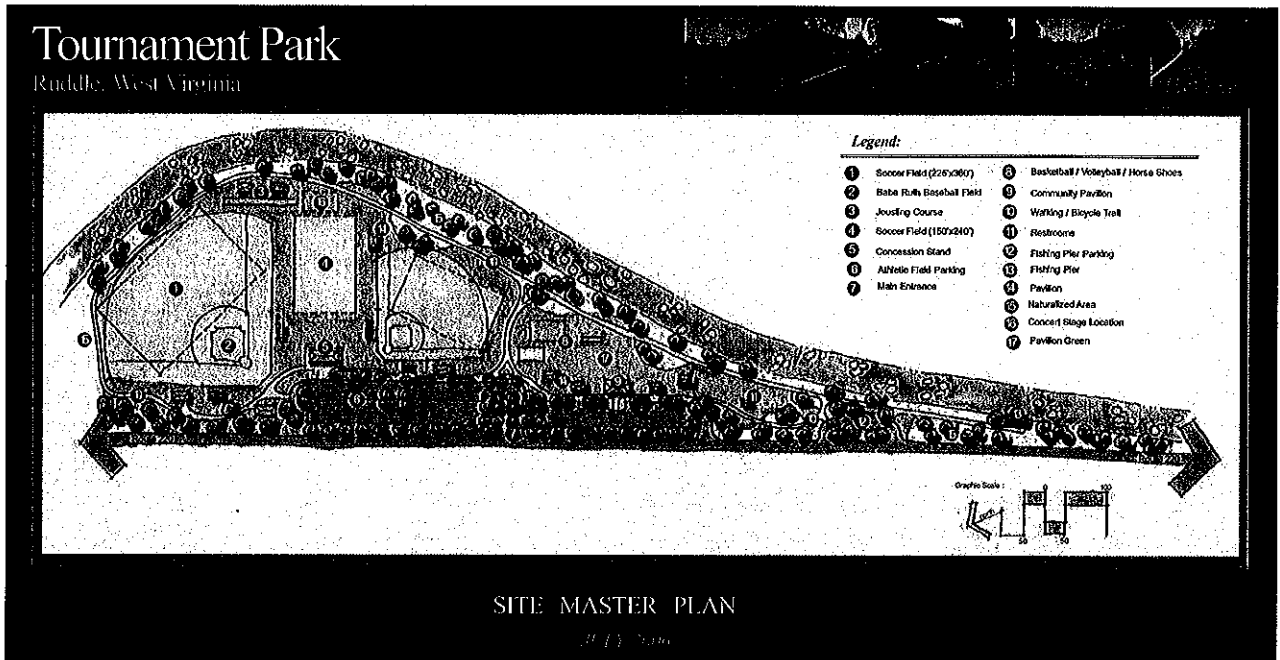
Services provided by Triad consisted of a phase I environmental site assessment to determine past site usage regarding any environmental concerns, field surveying to generate a map of existing site and topographic features, a geotechnical investigation to determine subsurface conditions to facilitate design of the building foundations and associated site work, design of all site grading and drainage features, and preparation of West Virginia Division of Highways (WVDOH) encroachment permit and West Virginia DEP construction storm water permits.

Client: Parkview LP. #6 Fairway Drive Huntington, West Virginia 25705 (304) 733-6913





Tournament Park Ruddle, West Virginia



A 15 Acre site near Franklin West Virginia will be developed into a community park. The park will have a multi-purpose sports fields that will be used for baseball and soccer. There will also be a jousting course that will be used during the local fall festival. Users of the park will also have access to a concession / restroom facility, walking / fitness trail, fishing access, and picnic shelters. The park will also have a information kiosk that will tell the history of the site as well as the surrounding community.

Services provided by Triad consisted of a complete site survey, geotechnical investigation, design of all site grading, drainage and layout features, preparation of permit applications including West Virginia Division of Highways (WVDOH) encroachment permit and WVDEP construction storm water permit, and quality control testing, inspection, and construction administration. In addition, Triad performed a detailed hydraulic analysis of the South Fork of the Potomac River in the project area to determine the base flood elevation.

Client: Franklin Parks and Recreation, Completion Date: Spring 2007



West Virginia Governor's Mansion

Built in 1923 and designed by local architect Walter Martens the Governor's Mansion was in need of restoration after years of deferred maintenance. Ultimately, the entire mansion was restored top to bottom.

The slate roof was restored with all new copper flashing. The infrastructure was completely replaced with all new wiring, plumbing, heating and cooling, security and fire alarm systems.

The living quarters on the second floor were upgraded and completely restored to their original elegance. The third floor which was added to the mansion in the 1940's, but never finished and was completely finished to be guest suited and a family gathering space for the first family.

The main floor public areas were completely restored to their original grandeur. Vivian Woofter, an interior designer for the State Department in Washington, D.C., lent her experience to the project. Ms. Woofter originally from West Virginia, now designs interiors for U.S. Embassies around the world.

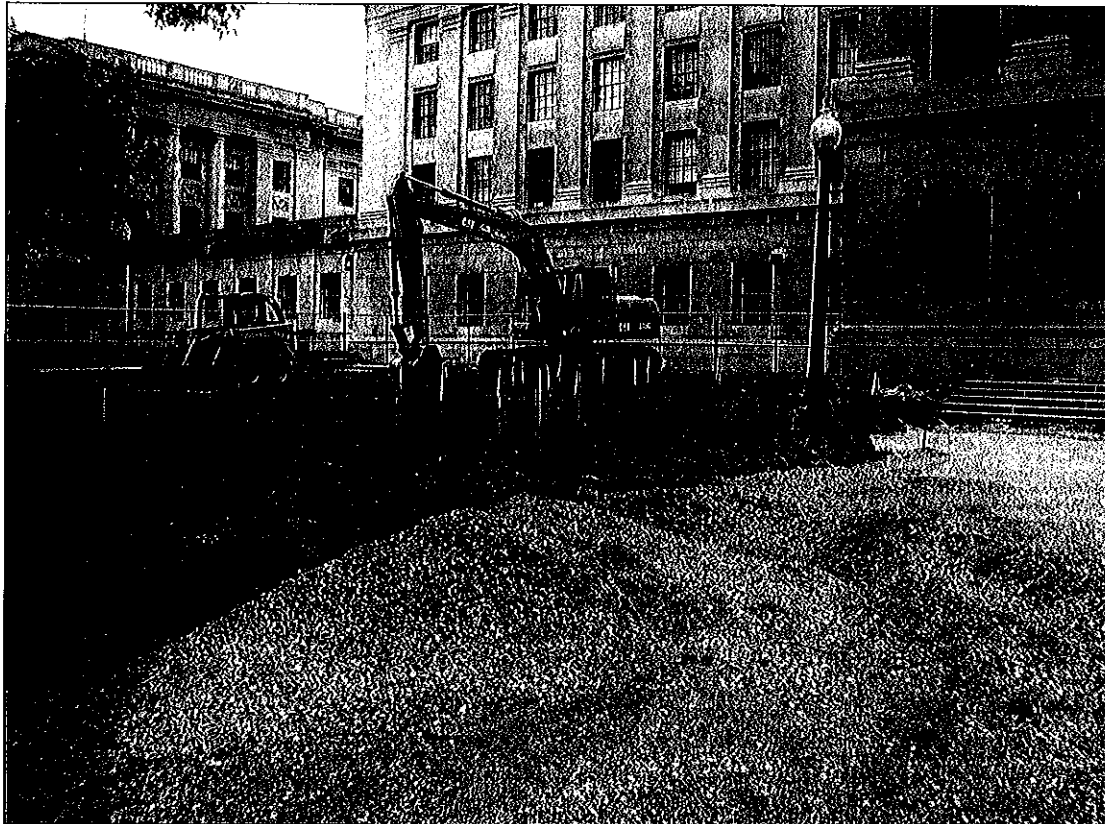


WV State Capitol Building

Accessible Entrances to the East and West Wings

These heavily used public entrances needed to be accessible in order for the State Capitol Building to be compliant with ADA. However there were multiple obstacles that had to be overcome to achieve accessibility. Inside, the vestibule was two levels with a marble floor and three marble steps. Outside there were massive limestone cheek walls and granite steps. The historic entranceways were all heavy oak double doors with a tall transom trimmed in ornate oak detailing.

The accessible design called for raising the marble vestibule floor to the level of the main building floor using the original marble. This also required the cutting down of the outer transom to match the interior transom. Outside, the cheek walls and steps were pulled out from the entrance face so the ramp could land behind the cheek wall at the entrance. The granite ramp was curved to give a more graceful appearance. And new granite steps were added to the entrance to blend with the original.



East Entrance Before Construction



East Entrance Accessible Ramp Completed



New West Entrance Stairs & Ramp



REFERENCES

Martha Moore, Mayor

City of Welch
88 Howard Street
Welch, WV 24801
304-436-3113

Mr. David Meadows

United States Army Corps of Engineers
502 Eighth Street
Huntington, WV 25701
304-399-5243

Pat Brown, Executive Director

Charleston Urban Renewal Authority
815 Quarrier Street
Charleston, WV 25301
304-348-6890

Dick Callaway, Mayor

City of St. Albans
1499 MacCorkle Avenue
St. Albans, WV 25177
304-727-2971

Mr. Charles Stover

West Virginia Division of Environmental Protection
Office of Abandoned Mine Lands & Reclamation
601 57th Street
Charleston, WV 25304
304-926-0499

◆ TRIAD Listens, Designs & Delivers

❖ LANDSCAPE ARCHITECTURE

Triad approaches our site development projects with sensitivity to the functional, aesthetic and environmental demands of each project. Our work includes master planning and detailed site design for parks and recreational facilities, urban improvement areas, residential and institutional settings, and streetscapes.

Park and Recreation Planning and Design

Triad's work in park design and rehabilitation is extensive, ranging from small pocket parks to large regional facilities. We have an unparalleled track record in taking these projects from the concept phase to permitting and through construction.

Site Development

Triad's site development work requires a multidisciplinary approach. Landscape architects work closely with engineers to optimize the use of the site while at the same time enhancing aesthetics. Whether for corporate site campuses, universities, residential communities or mixed use and retail developments, the Triad design team integrates buildings, roadways, open public spaces and site amenities into plans that are both practical and pleasing. As part of the site development process, the firm provides site layout, grading, drainage and planting plans with each design.

Urban Design

A focus of interest in landscape architecture is the rehabilitation of public urban spaces. As infrastructure ages over time, streetscapes deteriorate and pedestrian areas become unattractive. Triad has been actively involved in Streetscape and Urban Design projects that restore these public spaces so that they can be enjoyed by all.

Additional Landscape Architecture Services Include:

- ▼ Programming
- ▼ Land-Use Studies
- ▼ Marketing Illustrations
- ▼ Site Selection, Inventory and Analysis
- ▼ Resort and Entertainment Planning
- ▼ Disturbed Lands Restoration
- ▼ Trail Studies
- ▼ Residential Estate Master Planning
- ▼ Feasibility Studies

◆ TRIAD Listens, Designs & Delivers

❖ CIVIL ENGINEERING DESIGN

Triad has a team of professional personnel which provides civil engineering design services in a variety of markets including land planning, site development of residential subdivisions, commercial development, education and healthcare facilities, water/wastewater, landfills, reservoirs, and many other facets of land development. We can combine many other in-house services, from surveying to construction inspection and testing, to provide a product from start to finish. Our goal is to design a cost-effective project that incorporates good engineering science, meets local, state and federal regulations and codes, and is an appealing design that meets or exceeds client expectations.

Our Civil Engineering Design Services Include:

- ▾ **Site Grading and Development Plans**
 - Minor lot subdivisions
 - Major lot subdivisions
 - Planned unit developments
 - Erosion and sediment control plans
- ▾ **Commercial/Industrial Site Developments**
 - New commercial/industrial planned developments
 - New commercial/industrial buildings/parking sites
 - Additions/renovations to existing development sites
- ▾ **Landscape Design**
- ▾ **Storm Water Best Management Practices (BMP)**
 - Environmental Sensitive Design (ESD) (micro-scale BMPS, rainwater harvesting, and site planning practices)
 - Storm water conveyance systems (channels, storm drain pipe systems, etc.)
 - Storm water quantitative controls (ponds, underground storage, infiltration and attenuation)
 - Storm water quality controls to meet state and federal clean water acts (wetlands, filters, non-structural BMP, etc.)
- ▾ **Utility Design and Analysis**
 - Sanitary sewer conveyance systems
 - Sanitary sewer pump stations
 - Sanitary sewer on-site treatment (septic fields and treatment plants)
 - Potable water distribution systems
- ▾ **Hydrologic Studies**
 - Drainage studies
 - Flood plain analysis
 - Stream restoration
 - Reservoir rehabilitation/construction
- ▾ **Green Sustainable Design**
 - LEED Site Design and Consulting
 - LEED Site Certification Processing
 - Water Conservation Design
- ▾ **Land Use and Planning Consultation**
- ▾ **Transportation Engineering**
 - Traffic studies
 - Intersection design
 - Entrance plans
 - Roadway improvement plans
- ▾ **Reinforced Concrete Design**
- ▾ **Retaining Wall Design**
- ▾ **Construction Specifications and Contract Documents**
- ▾ **Construction Contract Administration**



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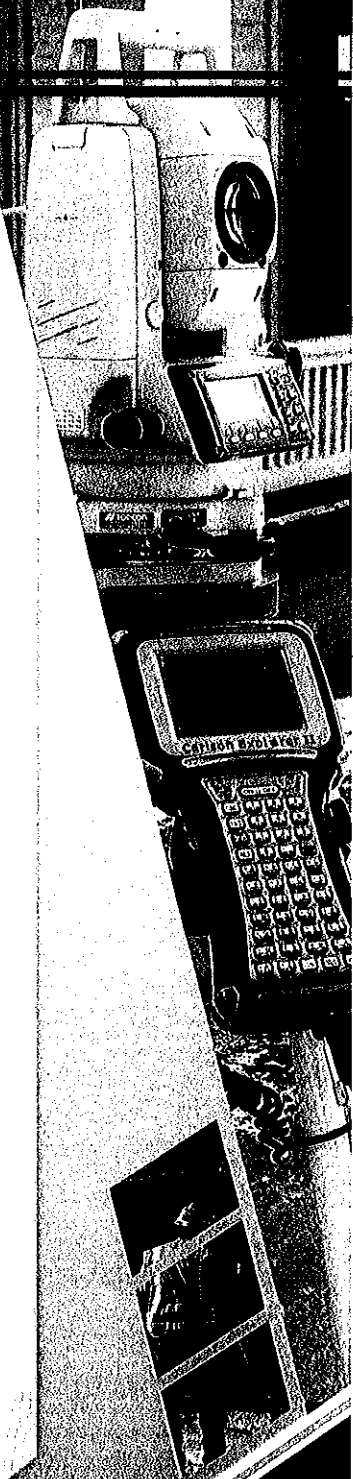
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❖ SURVEYING AND MAPPING SERVICES

Triad provides complete professional surveying and mapping services for clients in construction, mining and land development. All surveys are completed under the supervision of a licensed land surveyor experienced in the particular type of survey required. Triad utilizes GPS, robotic and conventional total stations with electronic data collectors. All surveys and mapping meet National Map Accuracy Standards or other appropriate quality standards. Triad routinely provides MSHA- and OSHA-trained survey crews, depending upon the site-specific requirements.

Our Surveying and Mapping Services Include:

- ▾ ALTA/ACSM Land Title Surveys
- ▾ Boundary and Subdivision Surveys
- ▾ Topographic and Planimetric Surveys
- ▾ Ground Control for Aerial Mapping
- ▾ Construction Layout and As-Built Surveys
- ▾ FEMA Flood Elevation Certificates
- ▾ Hazardous Material Site Surveys
(requires OSHA 40-Hour Certification)
- ▾ Hydrographic Surveys
- ▾ Support for Mining and Quarrying
Industries (requires MSHA certification)
- ▾ Quantity Determination Surveys
(Stockpiles, Mass Excavation)
- ▾ Streambed and Lake Soundings
- ▾ Well Plot Surveys for Oil and Gas Industry
- ▾ Settlement Monitoring and
Structural Deviation Surveys
- ▾ Locations of Delineated Wetlands



Please contact Triad to ask about other services which may not be listed

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❖ GEOTECHNICAL ENGINEERING SERVICES

Triad was originally formed in 1975 as a geotechnical engineering firm, and our expertise in this discipline is superior. Many of Triad's engineers have advanced degrees in geotechnical engineering. The combined education and professional experience of our staff provides our clients with cost-effective and practical solutions for the most difficult soil, rock and groundwater problems. Our clients include industrial and mining companies, governmental agencies, contractors, architects, engineers, developers, owners and commercial organizations. Geotechnical projects have included investigations for hospitals, churches, hotels, schools, shopping centers, communication towers, wind turbines, water and petroleum product storage tanks, coal and mineral processing facilities, landslides, bridges and highways, parks and recreation facilities, river docks, and impoundments of all types. Let Triad's experience and capabilities in geotechnical engineering help bring your project to a successful conclusion.

Our Geotechnical Engineering Services Include:

- ▾ Shallow and Deep Foundation Evaluations and Recommendations
- ▾ Landslide/Slope Stability Analysis and Remedial Design
- ▾ Earth and Earth/Rock Dam and Embankment Design
- ▾ Retaining Wall Evaluation and Design
- ▾ Mine Subsidence Investigations
- ▾ Flexible and Rigid Pavement Evaluations and Design
- ▾ Groundwater and Seepage Analysis and Design
- ▾ Shored and/or Braced Excavation Evaluations
- ▾ Foundation Underpinning Recommendations
- ▾ Forensic Investigations and Expert Witness Testimony
- ▾ Hydrogeologic Studies
- ▾ Fracture Trace Analysis
- ▾ Karst Investigations
- ▾ Geophysical Investigations
 - 2-Dimensional Electrical Resistivity Imaging
 - Ground Penetrating Radar (GPR) Testing
- ▾ Laterally Loaded Pile Analysis
- ▾ Pile Driveability Studies
- ▾ Seismic Site Classifications



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❖ CONSTRUCTION MONITORING, TESTING AND INSPECTION SERVICES

Quality Assurance/Quality Control (QA/QC) construction monitoring services have been core specialties since Triad was founded in 1975. We maintain a staff of experienced construction inspectors and technicians who are certified by ACI, WVDOH, VDOT, NICET, and numerous other local, state and/or nationally recognized organizations, as needed in the specific jurisdiction of the project. Our QA/QC management staff are long-term employees who have been instrumental in establishing close working relationships with our clients. Our growth has been the result of staff dedication, client satisfaction and significant repeat business from clients, many of whom have been with us for 25+ years. You can trust Triad to be constantly on guard for your interests. Triad will provide efficient, cost-effective services focused on the construction quality your project deserves.

Our Construction Monitoring Services Include:

- ▼ In-Place Moisture/Density Testing (sand cone and nuclear)
- ▼ Field Concrete Sampling and Testing
- ▼ Bearing Capacity Evaluation
- ▼ Footing, Wall and Slab Inspections
- ▼ Deep Foundation Construction Inspection (including driven piles, drilled piers, mini/micro piles and auger cast piles)
- ▼ Structural Steel Inspection (including visual inspection, non-destructive testing of welds, plumbness and inspection of bolted connections)
- ▼ Masonry Inspection (including mortar and grout testing and reinforcing steel inspection)
- ▼ Pre- and Post-Tensioning Inspection
- ▼ EIFS (Exterior Insulated Finishing System) Inspection
- ▼ Paint Thickness (Wet and Dry Film)
- ▼ Sprayed-on Fireproofing Inspection
- ▼ Firestop Inspection
- ▼ Floor Slab Flatness Testing
- ▼ Water and Sewer Line Construction Inspection
- ▼ Batch Plant Inspection
- ▼ Pre- and Post-Blast Inspections
- ▼ Blast Monitoring (seismograph)
- ▼ Reinforcement Locations (Cover Meter and Ground Penetrating Radar)
- ▼ Windsor Probe and Rebound Hammer Testing
- ▼ Concrete and Asphalt Core Drilling
- ▼ Field Asphalt Inspection
- ▼ Vapor Emission Testing
- ▼ HUD Inspections
- ▼ Draw Inspections

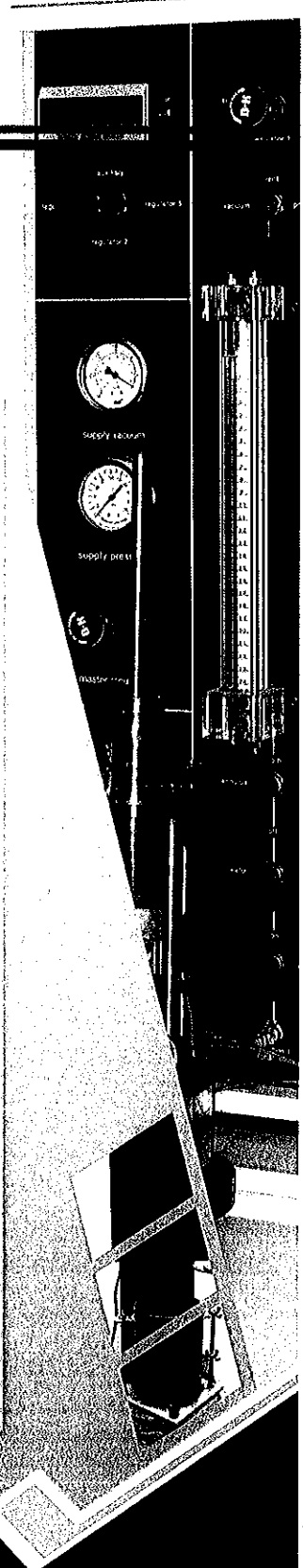
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❖ LABORATORY MATERIALS TESTING SERVICES

Providing support for our geotechnical engineering and construction monitoring divisions, Triad maintains complete laboratory facilities where tests are conducted by experienced technicians under the supervision of professional engineers. Our laboratory technicians hold many applicable state agency certifications. Materials tested include soil, concrete, aggregate, asphalt, rock and sprayed-on fireproofing. Our testing labs routinely participate in national quality control programs administered by AMRL and CCRL which follow AASHTO and ASTM testing procedures.

Our Laboratory Materials Testing Services Include:

- ▾ Soil Classification (Atterberg Limits and Grain Size Distribution)
- ▾ Moisture Content
- ▾ Specific Gravity
- ▾ Soil pH
- ▾ Organic Content
- ▾ Natural Density and Moisture Content
- ▾ Moisture-Density Relations (Standard and Modified)
- ▾ Maximum and Minimum Density (Granular Soils)
- ▾ California Bearing Ratio (CBR)
- ▾ Unconfined Compression
- ▾ Triaxial Shear
- ▾ Direct Shear
- ▾ Consolidation
- ▾ Permeability (Flexible and Rigid Wall)
- ▾ Los Angeles Abrasion
- ▾ Sodium Sulfate Soundness
- ▾ WVDOH Fractured Faces
- ▾ Clay Lumps and Friable Particles
- ▾ Flat and Elongated Particles
- ▾ Compressive Strength Testing
 - Concrete Cylinders
 - Concrete and Rock Cores
 - Grout Prisms, Grout Cubes and Mortar Cubes
 - Concrete Masonry Units
- ▾ Flexural Strength Testing - Concrete Beams
- ▾ Concrete Beam Shrinkage
- ▾ Concrete Chloride (Rapid Permeability, Shrinkage)
- ▾ Asphalt Testing (Absorption, Density and Extraction, Gradation, and Marshall Stability and Flow)
- ▾ Fireproofing Density and Moisture Content
- ▾ Pyritic Sulfur Content





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❖ WASTEWATER ENGINEERING SERVICES

Triad provides planning, design and construction administration for wastewater systems ranging in size from short sewer line extensions to major collection and treatment systems. Our experienced staff of professional engineers and designers provides personal attention and puts the needs of our clients first. They are well versed in all federal and state regulations related to wastewater systems, and they are extremely knowledgeable and experienced in working with funding agencies.

Our staff members have designed numerous wastewater collection and treatment systems for a diverse group of clients. We offer assistance and guidance in resolving problems while delivering high quality and innovative solutions through sustainable design. We can provide a turn-key project or serve in a limited role depending on the client's needs. Our background includes design of new facilities of varying magnitude, as well as system expansion and cost-effective rehabilitation of existing systems. We can provide operation and maintenance assistance as well as troubleshooting systems.

Efficient, cost-effective collection and treatment of wastewater is necessary to protect the health of the population and the environment. Triad has the experience and capabilities to assist you in the development of a dependable wastewater collection and treatment system to meet the needs of your community.

Wastewater Engineering Design Services Include:

- ▼ Preparation of Facilities Planning Studies and Preliminary Engineering Reports
- ▼ Assisting Clients in Obtaining Funding
- ▼ Design of Wastewater Systems
 - Line Layout
 - Hydraulic Analysis
 - Pump Station Design
 - Odor Control Facilities
 - Plant Layout and Design
 - Rehabilitation of Existing Systems
- ▼ Specifications and Construction Documents
- ▼ Permit Applications
- ▼ Construction Cost Estimates
- ▼ Assistance in Land Acquisition and Obtaining Rights-of-Way
- ▼ Assistance in Securing Competitive Construction Bids
- ▼ Construction Administration
 - Review of Shop Drawings
 - Processing Contractor's Periodic Pay Requests
 - Construction Monitoring
 - Semi-Final and Final Inspections
 - Preparation of Operation and Maintenance Manuals
 - One-Year Certifications
 - Final Project Close-Out



Please contact Triad to ask about other services which may not be listed

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❖ POTABLE WATER SYSTEM ENGINEERING SERVICES

Triad provides planning, design and construction administration for potable water systems ranging in size from relatively small line extensions to county-wide utility programs. Our dedicated staff of professional engineers and designers provides personal attention and puts our client's interests first. They are knowledgeable in all federal and state regulations related to potable water systems, and their experience and expertise in working with funding agencies is unmatched.

Our staff members have designed numerous water distribution systems and water treatment plants for a wide variety of clients. We offer assistance and guidance in resolving problems while delivering high quality and innovative solutions through sustainable design. We can provide a turn-key project or serve in a limited role depending on the client's needs. Our background includes design of new facilities of varying magnitude, as well as system expansion and cost-effective rehabilitation of existing systems. We can provide operation and maintenance assistance as well as troubleshooting systems.

Consistent sources and quantities of potable water are crucial for the health of the population. You can depend on Triad's assistance in the development of a reliable potable water system to meet the needs of your community and its businesses.

Our Potable Water System Engineering Services Include:

- ▾ Preparation of Preliminary Engineering Reports
- ▾ Assisting Clients in Obtaining Funding
- ▾ Design of Water Systems
 - Line Layout
 - Hydraulic Analysis
 - Booster Station Design
 - Water Storage Tank Design
 - Pressure Reducing Station Design
 - Plant Layout and Design
- ▾ Preparation of Specifications and Construction Documents
- ▾ Permit Applications
- ▾ Construction Cost Estimates
- ▾ Assistance in Land Acquisition and Obtaining Rights-of-Way
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❖ DRILLING AND SAMPLING SERVICES

Triad owns and operates numerous drilling rigs at various offices. Our drilling fleet includes truck-mounted, track-mounted, skid-mounted and ATV-mounted rigs. Drill rigs are available at all office locations as needed. The track-, ATV- and skid-mounted units can access the most difficult types of terrain. Our rigs provide support primarily for in-house geotechnical engineering projects. In addition, Triad routinely provides subcontract drilling services for other consultants, private industry, and state, federal or municipal governments. Support equipment includes water trucks, tanks, piping, pumps and portable grout mixer/pumps. Triad can provide drill crews who are OSHA- and MSHA-trained when required for the project.

Our Drilling Services Include:

- ▼ Soil Test Borings with Standard Penetration Testing and Sampling
- ▼ Rock Coring and Sampling (NQ and PQ Size Cores)
- ▼ Auger Borings
- ▼ Undisturbed Shelby Tube Sampling
- ▼ Roller Bit Borings
- ▼ Down Hole Hammer (DHH) Drilling
- ▼ Bridge Pier (Barge-Based) Borings
- ▼ Coal Exploration Borings
- ▼ Coal Refuse Drilling and Sampling
- ▼ Hazardous Waste Sampling
- ▼ Sludge Pond Sampling
- ▼ Sub-Bottom Core Holes
- ▼ Borehole Packer Permeability Testing
- ▼ Piezometer Installation
- ▼ Slope Inclinator Casing Installation
- ▼ Monitoring Well Installation and Development
- ▼ Borehole Grouting

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❖ ENVIRONMENTAL SERVICES

Triad provides a broad, comprehensive range of environmental consulting services to a variety of clients through the expertise of our diverse staff of environmental scientists, engineers, geologists, biologists, chemists and licensed remediation specialists. Our clients include federal and state regulatory agencies, county development offices, property owners, developers, banks, hospitals, and private industries.

We are proud of our relationships with state and federal environmental agencies, built over time through integrity and sound scientific work. Our staff is experienced and knowledgeable in current environmental regulatory requirements and has a proven track record of successfully completing projects for clients under such programs as the West Virginia Voluntary Remediation Program, Pennsylvania Act 2, RCRA, Leaking Underground Storage Tank Program, USEPA All Appropriate Inquiries and the USEPA Superfund Program.

Triad's Corporate Health and Safety Program requires all environmental staff to be fully trained in applicable OSHA standards and regulations, including the 40-hour Hazardous Waste Operations and Emergency Response Standard. Our Corporate Safety Manager prepares site specific Health and Safety Plans as appropriate to ensure the safety of our staff when working in potentially hazardous work environments.

Our Environmental Services Include:

- ▼ **Environmental Site Assessments**
 - Due Diligence Evaluations, including Transaction Screen Assessments and Phase I and Phase II ESAs
 - Vapor Intrusion Assessments
 - Remediation Design & Oversight
 - Human Health and Ecological Risk Assessments
- ▼ **Brownfield/Voluntary Cleanup**
 - WV Voluntary Remediation
 - PA Act 2 Projects
 - Community-wide Brownfield Assessments
 - Targeted Brownfield Assessments
- ▼ **Underground Storage Tanks**
 - UST Closure
 - Site Characterization and Corrective Action Plans
 - Groundwater and Soil Remediation
- ▼ **Data Validation and Data Quality Services**
- ▼ **Indoor Air Quality/Industrial Hygiene Assessments**
 - Asbestos Inspections
 - Indoor Air Quality Assessments
 - Radon and Mold Assessments
- ▼ **Mining Related Environmental Services**
- ▼ **Ecological Services**
 - Wetland Delineation Studies and Permitting
 - Wetland and Stream Mitigation
 - Forest Stand Delineation Studies
 - Rare, Threatened and Endangered Species Evaluation
- ▼ **Groundwater Studies**
 - Source Water Assessments
 - Hydrogeologic Investigations
 - Fate and Transport Modeling
 - Natural Attenuation Modeling
- ▼ **Permitting/Regulatory Compliance**
 - NPDES Permits
 - Storm Water Pollution Prevention Plans (SWPPP)
 - SPCC Plans
 - Clean Air Act
 - NEPA Evaluations
 - Endangered Species and Archeological Surveys



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Triad Engineering, Inc.

Landscape Architecture
Civil Engineering
Surveying & Mapping
Geotechnical Engineering
Construction Monitoring, Testing & Inspection
Wastewater System Engineering
Potable Water System Engineering
Drilling & Sampling
Environmental Services

Office Locations:

West Virginia
Pennsylvania
Virginia
Maryland

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