

# PIPESTEM RESORT STATE PARK

## CABIN AREA WWTP REPLACEMENT

June 16, 2016

### Expression of Interest



**Prepared For:**

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

**Prepared By:**

Triad Engineering Inc.  
10541 Teays Valley Road  
Scott Depot, West Virginia 25560  
Phone: (304)755-0721

06/16/16 12:55:12  
WV Purchasing Division



◆ TRIAD Listens, Designs & Delivers™

[www.triadeng.com](http://www.triadeng.com)

June 16, 2016

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

**RE: Expression of Interest  
Cabin Area Wastewater Treatment Plant Replacement  
Pipestem Resort State Park  
Triad Proposal No. 04-16-0243**

Dear Mr. Nisbet:

We are pleased to present our Expression of Interest for the engineering, design and construction administration for the Cabin Area Wastewater Treatment Plant (WWTP) Replacement Project at Pipestem Resort State Park.

We are confident that the attached documentation will illustrate how we will work with the Division of Natural Resources (DNR), West Virginia State Parks to inspect and evaluate the existing WWTP, to develop and provide the best options for replacing the existing plant, development of a complete set of construction documents and providing construction administration services during construction. As you can see from the enclosed documents, **TRIAD ENGINEERING, INC.** is a full service engineering firm with experienced personnel that can provide all necessary engineering services, including planning/evaluation, design/bidding, construction monitoring services, and more should the need arise.


**TRIAD** will work hard on behalf of the WVDNR to communicate in a timely manner all aspects of the project and services requested. We will identify cost savings, while keeping close scrutiny on contractor pay requests, and careful tracking of any change orders proposed by contractors to ensure the project is completed in a prudent financial manner. **TRIAD** will encourage input from WVDNR personnel.

If you have any questions or comments about our proposal, please do not hesitate to contact us at (304)755-0721.

Very truly yours,

**TRIAD ENGINEERING, INC.**

  
Carrie L. Grimm  
Utility Group Manager

  
David F. Meadows, PE, PS  
Regional Manager



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

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

Proc Folder: 214527

Doc Description: Addendum No.01:Pipestem SP-A/E for Cabin Area Wastewater

Proc Type: Central Contract - Fixed Amt

Date Issued	Solicitation Closes	Solicitation No	Version
2016-06-07	2016-06-16 13:30:00	CEOI 0310 DNR1600000022	2

**BID RECEIVING LOCATION**

BID CLERK  
 DEPARTMENT OF ADMINISTRATION  
 PURCHASING DIVISION  
 2019 WASHINGTON ST E  
 CHARLESTON WV 25305  
 US

**VENDOR**

Vendor Name, Address and Telephone Number:

Triad Engineering, Inc.  
 10541 Teays Valley Road  
 Scott, Depot, WV 25560  
 304-755-0721

**FOR INFORMATION CONTACT THE BUYER**

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

Signature X

FEIN # 550592364

DATE June 16, 2016

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

**ADDITIONAL INFORMATION**

**Addendum**

Addendum No.01 issued to publish and distribute the following attached information to the vendor community.

\*\*\*\*\*

**Expression of Interest**

The West Virginia Purchasing Division is soliciting Expression(s) of Interest for the Agency, The Division of Natural Resources WVDNR, from qualified firms to provide architectural/engineering services and other related professional services to design and provide construction contract administration services to replace a wastewater treatment plant at Pipestem Resort State Park as defined herein.

<b>DIVISION OF NATURAL RESOURCES PARKS &amp; RECREATION-PEM SECTION 324 4TH AVE SOUTH CHARLESTON WV25305 US</b>	<b>DIVISION OF NATURAL RESOURCES WEST VIRGINIA STATE PARKS 324 4TH AVE SOUTH CHARLESTON WV 25303-1228 US</b>
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Line	Comm Ln Desc	Qty	Unit Issue
1	Wastewater engineering	0.00000	

Comm Code	Manufacturer	Specification	Model #
81101527			

**Extended Description :**

A/E services necessary to replace the cabin area wastewater plant at Pipestem Resort State Park.

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

\_\_\_\_\_  
 (Name, Title)

\_\_\_\_\_  
 (Printed Name and Title)  
 10541 Teays Valley Road, Scott Depot, WV 25560


\_\_\_\_\_  
 (Address)

\_\_\_\_\_  
 (Phone Number) / (Fax Number)  
 dmeadows@triadeng.com

\_\_\_\_\_  
 (email address)

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

Triad Engineering, Inc.  
 \_\_\_\_\_  
 (Company)

 Chief Technical Officer  
 \_\_\_\_\_  
 (Authorized Signature) (Representative Name, Title)

David F. Meadows, PS, PE, Regional Manager, CTO  
 \_\_\_\_\_  
 (Printed Name and Title of Authorized Representative)

June 16, 2016  
 \_\_\_\_\_  
 (Date)

304-755-0721 / 304-755-1880  
 \_\_\_\_\_  
 (Phone Number) (Fax Number)

ADDENDUM ACKNOWLEDGEMENT FORM  
SOLICITATION NO.:

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

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

Addendum Numbers Received:  
(Check the box next to each addendum received)

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> Addendum No. 1 | <input type="checkbox"/> Addendum No. 6  |
| <input type="checkbox"/> Addendum No. 2            | <input type="checkbox"/> Addendum No. 7  |
| <input type="checkbox"/> Addendum No. 3            | <input type="checkbox"/> Addendum No. 8  |
| <input type="checkbox"/> Addendum No. 4            | <input type="checkbox"/> Addendum No. 9  |
| <input type="checkbox"/> Addendum No. 5            | <input type="checkbox"/> Addendum No. 10 |

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

Triad Engineering, Inc.  
Company

  
Authorized Signature

June 16, 2016  
Date

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

STATE OF WEST VIRGINIA  
Purchasing Division

**PURCHASING AFFIDAVIT**

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

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

**DEFINITIONS:**

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

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

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

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

**WITNESS THE FOLLOWING SIGNATURE:**

Vendor's Name: Triad Engineering, Inc.

Authorized Signature: [Signature] Date: June 16, 2016

State of West Virginia

County of Putnam, to-wit:

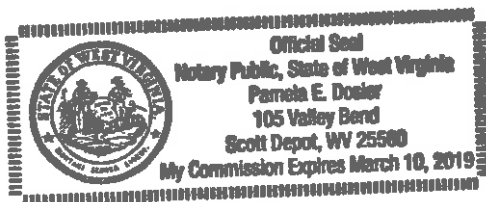
Taken, subscribed, and sworn to before me this 16 day of June, 2016.

My Commission expires March 10, 2019.

AFFIX SEAL HERE

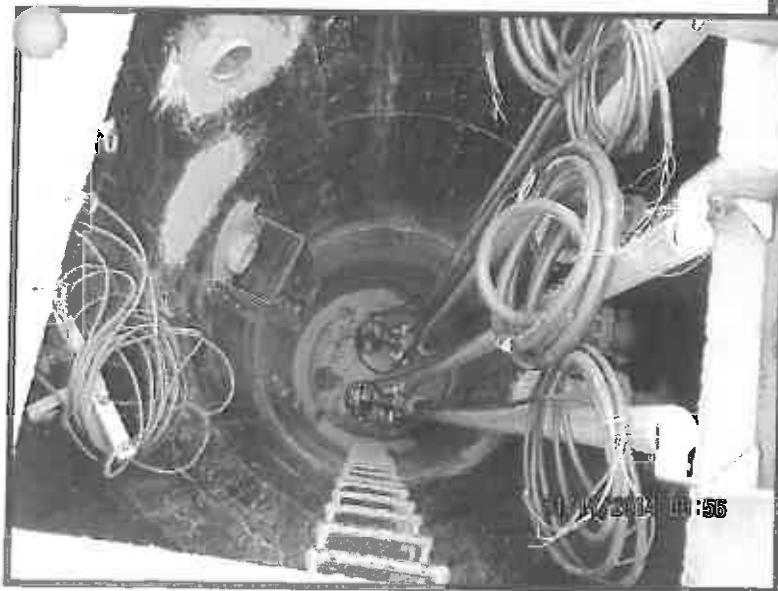
NOTARY PUBLIC [Signature]

Purchasing Affidavit (Revised 08/01/2015)



## SCOPE OF WORK PROJECT UNDERSTANDING

Based on the information provided, we understand the project consists of the replacement of the existing wastewater treatment facility serving the Cabin Area at Pipestem Resort State Park, in Pipestem, WV. We understand the existing facility is a 1970's era 10,000 gallon per day extended aeration plant which serves 25 cabins. The present condition of the plant is poor and therefore, a replacement is necessary. According to the documents, the West Virginia Division of Natural Resources (WVDNR) is requesting consideration be given to alternative technologies and changes in the contributing waste sources to obtain a more effective and economical treatment system. We understand the proposed engineering services will consist of inspecting and evaluating the existing wastewater infrastructure and treatment system, providing preliminary design with alternatives, providing a final design based on the decision of the WVDNR, preparation of a complete set of construction documents, and construction administration during construction of the system upgrades.





## **SCOPE OF WORK PROJECT APPROACH**

Below is our typical approach to projects of this nature. We will perform all tasks discussed below in strict accordance with the agreed upon schedule. Although we have no control over owner and agency administration and review time, we will make sure all of our responsibilities are performed on time and within the agreed upon budget.

### **PHASE 1 – INITIAL INVESTIGATION AND PRELIMINARY APPROVAL**

#### **Task 1 – Review Existing Information/Preliminary Engineering Report**

Triad Engineering, Inc. (Triad) will perform a thorough review of all information available pertaining to the Park's wastewater treatment and collection system, specifically the improvements needed to provide a more effective and economic means of treatment. Triad will supply the WVDNR with an assessment of the information and propose alternatives for improvements and replacement of the antiquated facility. This will be outlined in a Preliminary Engineering Report with supporting cost estimates.

**Task 1A – Contributing Waste Sources** –Triad will conduct an inspection and evaluation of all current waste sources along with the integrity of the existing collection system. Triad will look at the current waste sources and waste loads to determine necessary steps to provide an optimal and efficient system.

**Task 1B – Evaluation of the existing collection system.**– Evaluation of the existing collection system may consist of a closed circuit television (CCTV) inspection and/or smoke testing of the existing piping. The routing and configuration of the existing collection system will also be determined through the review of existing as-built documentation or through the CCTV Inspection.

**Task 1C – Data Compilation**–Triad will compile and review the collected data. The data will also be displayed on existing mapping to illustrate areas of concern.

**Task 1D – Preparation of Report** –Triad will prepare a report to identify the findings of the evaluation and present the report to the Town to discuss the findings, methods of rehabilitation, and anticipated construction costs.



# SCOPE OF WORK PROJECT APPROACH

## **Task 2 – Project Planning Meetings**

We will schedule a meeting(s) with the WVDNR and all stake holders to discuss the needs and possible solutions. We will also schedule a meeting(s) with the various regulatory agencies to present the preliminary ideas and receive their input.

## **PHASE 2 – PRELIMINARY AND FINAL DESIGN**

The following tasks will be accomplished as part of the preliminary and final design of the WVDNR Wastewater Treatment Plant upgrade and replacement project.

### **Task 1 – Selection of Alternative**

Triad will recommend specific alternatives for the wastewater treatment plant replacement and collection system improvements. The decision will be based on cost, feasibility of construction, operation and maintenance issues, and input from the WVDNR and regulatory agencies.

### **Task 2 – System Mapping**

If system mapping is not already available, Triad will obtain aerial mapping and perform the necessary survey work to provide accurate and up-to-date mapping of the area. We will also include existing utility information. We will also convert existing treatment plant drawings (if available) into useable CAD files.

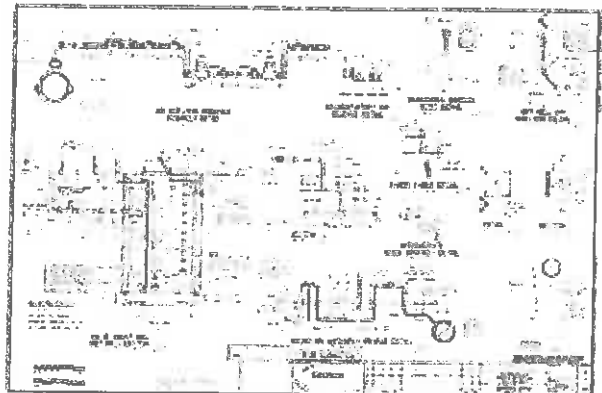
### **Task 3 – Preliminary Design**

TRIAD will perform preliminary design of the proposed improvements and treatment plant replacement, including geotechnical investigations, line layout, site design, structural design, selection of equipment, and hydraulic analysis. We will then review the design with the WVDNR.

### **Task 4 – Final Design**

Triad will incorporate any comments offered by the WVDNR as well as the regulatory agencies into the final design. We will then proceed with detailing the preliminary design which will include:

- System Profiles
- Design of System Components
- Selection of Equipment
- Preparation of Details
- Preparation of Specifications
- Preparation of Contract Documents
- Preparation of a Final Cost Estimate
- Preparation of Design Report



## **SCOPE OF WORK PROJECT APPROACH**

We will then review the final design with the WVDNR and make any necessary changes.

### **Task 5 – Final Approval**

Triad will be responsible for completing all permit applications, conducting meetings with various regulatory agencies, and making final revisions to the plans and specifications.

### **PHASE 3 – BIDDING PHASE**

Triad will assist the WVDNR in preparing and placing the advertisement for construction of the proposed project(s). We will conduct a pre-bid meeting, address all contractor questions, issue addendum, if any, conduct the bid opening, certify the bids, and make a recommendation to the WVDNR.

### **PHASE 4 – CONSTRUCTION ADMINISTRATION AND OBSERVATION**

Triad will provide construction administration and observation services for the duration of the project(s). Triad will provide the following services during construction:

- Conduct a Pre-Construction Meeting
- Process Monthly Pay Requests
- Review Shop Drawings
- Attend Monthly Meetings
- Conduct a Semi-Final and Final Inspection
- Preparation of As-Built Drawings
- Preparation of O&M Manuals
- Assist the WVDNR in Startup and Training
- Prepare or assist the WVDNR with an Asset Management Plan (if applicable)



In addition, Triad will provide full time construction observation to monitor the progress of the contractor. This employee will be on site any time the contractor is working.

### **PROJECT COORDINATION AND COMMUNICATION**

Triad will assign Mike Yandrich, P.E. or Tim Campbell, P.E. to serve as the Project Manager, and Carrie Grimm will serve as the Project Coordinator on this project. The Project Manager will serve as a single point of contact for the WVDNR. If a question or concern arises during the planning, design, construction, or project close-out the WVDNR may contact the Project Manager who is responsible for securing the requested information. The WVDNR may also speak directly to Ms. Grimm or any team member at any time, if that is the preferred method of communication.

Triad provides "Status Reports" during the planning and design phases of projects at a frequency requested by our clients. The status report provides regular updates on the

## **SCOPE OF WORK PROJECT APPROACH**

project. Triad also holds regular meetings and conducts conference calls from the start of the project to close out of the project. These meetings and calls are typically scheduled at a frequency requested by the client. The meetings and calls permit all project team members to efficiently discuss project activities.

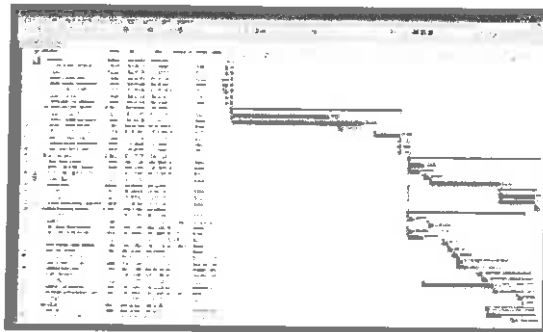
### **PROJECT BUDGET CONTROL**

Our project manager and project coordinator have the responsibility of controlling the budget through the use of our Microsoft Dynamics, SL project accounting and project management suite. This software is capable of segregating and identifying costs for each job performed under the contract. Microsoft Dynamics, SL provides a sophisticated level of accounting and project reporting, detailed budgeting, and business management. It features a full accounting system (accounts payable, accounts receivable, billing, and payroll), combined with a flexible project management structure and streamlined reporting capabilities. Microsoft Dynamics, SL also provides a complete audit trail to track costs, manage entries, audit histories and identify errors for easy correction.

### **CONSTRUCTION SCHEDULE CONTROL**

The duration for this project will be determined by Triad and agreed upon by WVDNR during the construction document preparation phase. A construction schedule based on the established project time frame will be prepared and submitted by the contractor. The construction schedule will be monitored closely by our project manager and project coordinator. During the construction phase of the project, Triad will hold progress meetings for schedule control purposes. These meetings are scheduled at a frequency desired by clients. At progress meetings, all aspects of the project are discussed with the contractor and our client. The meeting agenda includes discussion of the project schedule and typically includes the following:

- Outstanding Issues
- Work In Progress
- Critical Delays (Lead Time On Project Components)
- Non-Critical Delays
- ROWs
- Environmental Mitigation/Issues
- Permits
- Communication of Planned Service Interruptions
- Maintenance of Traffic
- Public Relations
- Testing
- Submittals
- Requests for Information
- Complete Items and Agreement on Quantities
- Dispute Resolution
- Pay Requests
- Contractor Issues
- Open Discussion

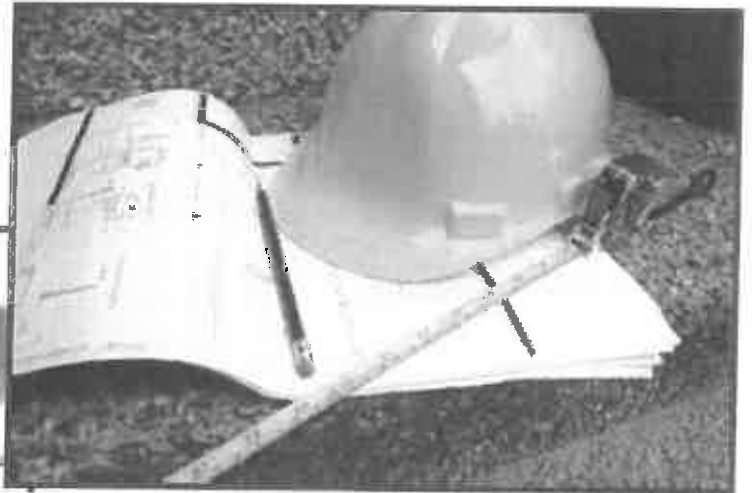
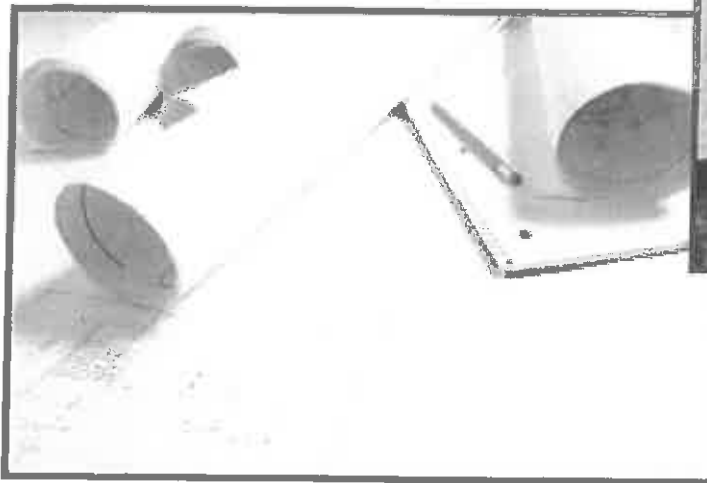


## SCOPE OF WORK PROJECT APPROACH

These project meetings are instrumental to the project schedule by keeping the lines of communication open and to address all issues in a timely manner.

### **SUBCONTRACTORS**

Triad will not require any subcontractors for services to be provided under this contract. It has been the philosophy of Triad from our inception to provide full service consulting, to the degree we have the ability and expertise in-house. Therefore, over the years we have invested a great deal of capital to assemble modern and reliable equipment as well as a team of qualified and experienced personnel. Because we have focused on investing in our people and our equipment, Triad rarely needs to utilize subcontractors. We have found that maintaining capabilities in-house provides us with much better control over schedule, cost, and quality.



## QUALIFICATIONS COMPANY BACKGROUND

**TRIAD ENGINEERING, INC.** is a regional consulting firm based in West Virginia that provides professional services in the areas of civil, 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 nearly 40 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 hydrogeological 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. Our Utilities Group possess all the necessary equipment to perform a thorough and comprehensive Sanitary Sewer Evaluation Study including Closed Circuit Television Camera Systems (remote control and cable driven), flow meters and smoke testing equipment.



**TRIAD** currently includes a staff of approximately 200 personnel located in seven offices: Hagerstown, Maryland; Pittsburgh, Pennsylvania; Ashburn and Winchester, Virginia; Athens, Ohio; and Morgantown and

St. Albans (Scott Depot), West Virginia. Our personnel include chemical, civil, environmental, geotechnical and mining engineers, as well as geologists and hydro geologists, biologists, chemists, environmental scientists, planners, landscape architects, natural resource specialists, regulatory compliance specialists, permitting engineers, risk assessors and health and safety specialists.



## **QUALIFICATIONS COMPANY BACKGROUND**

Our technical support and administrative staff includes designers, draftsmen, surveyors, technicians, drillers, construction inspectors, project coordinators 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's** team of employees has substantial experience with wastewater projects of this type. **TRIAD** has worked extensively with agencies that assist communities with funding projects. **TRIAD** has been very successful in obtaining grants and low interest loans for our clients. These funding agencies include WV DEP – State Revolving Fund, Rural Utilities Service, Infrastructure and Job Development Council, Water Development Authority, and Small Cities Block Grant program.

**TRIAD ENGINEERING, INC.** is one (1) of only a handful of WV based engineering firms that can provide you with a true turn-key project. Most other firms require sub-consultants for surveying, geotechnical, and/or construction inspection services. Keeping all services under one consultant eliminates costly overruns and delays as well as provides for 100% accountability during the entire project.



## MANAGEMENT AND STAFFING CAPABILITIES

**Engineers** – All of the engineers who will provide services for this project are registered professional engineers 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.

**Experience and Expertise** – We believe that the information under the ***Related Prior Experience*** Tab will clearly show that TRIAD has extensive experience in potable water 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. Our company currently has a staff of approximately 170 personnel located in seven offices. Your project will be accomplished by the capable staff of the Saint Albans, WV office. However, should the need arise, we can call upon the resources of any of our other six offices.





## QUALIFICATIONS PROJECT TEAM

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 various projects will possess the necessary qualifications in their particular areas of expertise, and will work with you and your staff to ensure success.

Our principal in charge, **David Meadows** is a registered professional engineer and surveyor in West Virginia. Mr. Meadows brings over 40 years of leadership, design and project management experience to TRIAD Engineering. Mr. Meadows joined TRIAD in 2013 to provide management to the southwest region which includes the southern West Virginia area and the Athens, Ohio office. Prior to coming to TRIAD he served in a number of technical and leadership positions at the US Army Corps of Engineers, Huntington District. His expertise includes civil design, geotechnical engineering, construction management, surveying, environmental remediation and water resources engineering.

**Mike Yandrich, PE** is currently a Project Engineer for the Triad Engineering Utilities Group in the Athens, Ohio office, is a registered professional engineer in West Virginia and Ohio. He has some 20 years of experience in designing water, wastewater and storm water projects. Mr. Yandrich has participated in design, project management review, development, and state and local permitting of a wide variety of projects including water, wastewater, "green" roof, structural, and electrical/renewable energy for various sites throughout Southeast Ohio, Kentucky, and West Virginia. Mr. Yandrich's educational background includes environmental engineering, ecological engineering, civil engineering, wastewater collection and treatment, storm water conveyance, water distribution systems, storm water pollution control, stream restoration, and wetland design and restoration.

**Tim Campbell, PE** is a project engineer for our Utilities Group. Mr. Campbell has over 22 years of experience in managing and designing water and wastewater projects. Mr. Campbell has extensive experience in providing environmental and engineering consulting services in the wastewater field through project planning, design and construction oversight. Mr. Campbell has managed storm water and pretreatment programs to facilitate compliance with federal and state water quality regulations.

**Lee McCoy, PE** our Civil Site Group Manager, is a registered professional engineer in West Virginia, Kentucky and Ohio. He has over 18 years of experience in civil site design which includes site selection, site layout, grading, drainage, water and waste water, and development of storm water management plans. 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 observe the projects through the construction phase.

## **QUALIFICATIONS PROJECT TEAM**

**Carrie Grimm** is a Project Coordinator for the Utilities Group in the Scott Depot, WV office. Ms. Grimm has over 28 years of project coordination and management experience. Ms. Grimm will assist the project manager in all water and wastewater efforts. Ms. Grimm is responsible for funding acquisition assistance to clients for water and wastewater projects, facilitating communication between Triad's clients and funding agencies, processing and tracking draw down of funds, supporting senior level engineers on impact of project costs to utility charges, preparation of status reports and facilitating and attending community meetings. Ms. Grimm also works with senior level engineers in preparation of asset management plans and utility rate analyses for clients.

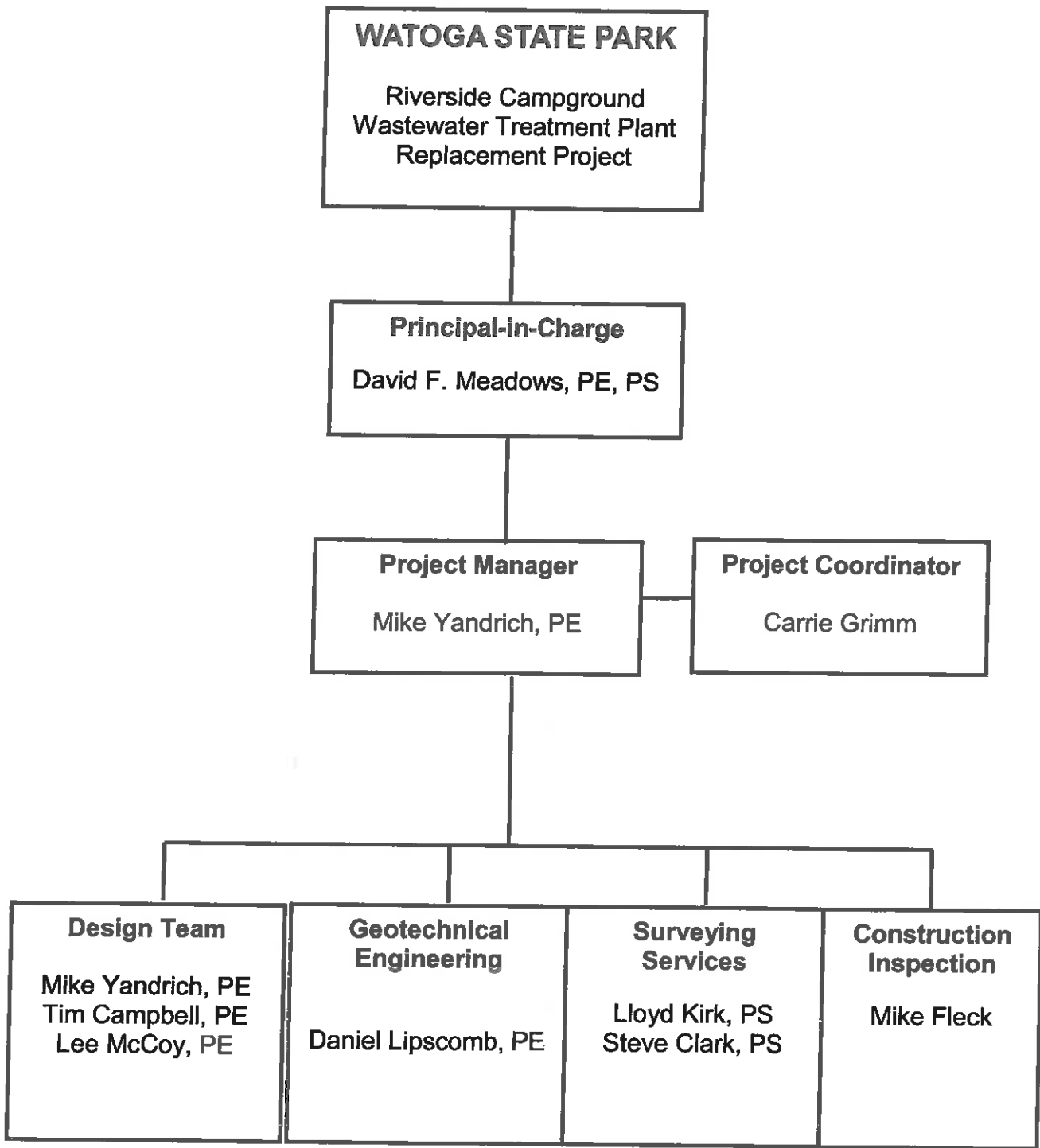
**Danny Lipscomb** is currently the Geotechnical Services Manager and a Senior Engineer at the St. Albans branch of Triad. As a registered professional engineer, Mr. Lipscomb has been involved in development and management of subsurface exploration projects and development of geotechnical engineering reports providing recommendations based on field observations and laboratory results for bearing capacity, earthwork operations, earthen dam embankments, slope stability, flexible and rigid pavement design, lateral earth pressures, sinkhole remediation, geophysics (electrical resistivity and ground penetrating radar), and rock excavation. These projects have included roadway/bridges, freshwater dams, shopping centers, buildings, retaining walls, residential communities, water storage tanks, waste water treatment facilities, and structures for coal mining facilities.

**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 various projects will possess the necessary qualifications in their particular areas of expertise, and will work with you and your staff to ensure success.

Our Organization Chart and detailed resumes of key staff are on the following pages.



# ORGANIZATIONAL CHART





**Education**

M.S., Civil Engineering  
(Geotechnical), 1981,  
Virginia Polytechnic  
Institute and State  
University, Blacksburg,  
Virginia

M.S., Civil Engineering,  
1987, West Virginia  
College of Graduate  
Studies, Charleston, WV

B.S., Civil Engineering,  
1974, West Virginia  
Institute of Technology,  
Montgomery, WV,  
Graduated Cum Laude.

**Professional Experience**  
41 Years

**Registrations &  
Licenses**

Registered Professional  
Engineer- WV  
Registered Professional  
Surveyor- WV

**Skills**

- Geotechnical Engineering
- Civil Engineering
- Environmental Assessments

**Highlights of Experience**

Mr. Meadows brings over 40 years of leadership, design, construction and project management experience to Triad Engineering. Mr. Meadows joined Triad in 2013 to provide management to the southwest region which includes the southern West Virginia area and the Athens, Ohio office. Mr. Meadows has recently been named Triad's Chief Technical Officer. In this capacity he helps with technical expertise, quality and risk management, operations management, leadership and business development.

Prior to coming to Triad he served in a number of technical and leadership positions at the US Army Corps of Engineers, Huntington District. His expertise includes civil design, geotechnical engineering, construction management, surveying, environmental remediation and water resources engineering.

**Relevant Project Experience**


**Triad Engineering, Scott Depot, WV**

Mr. Meadows has played an important role in maintaining the technical quality and management of the region, while being very active in business development. Besides managing all phases of operations for the Scott Depot, WV and Athens, OH offices, Mr. Meadows is responsible for management and planning of all civil engineering design projects; environmental assessments; surveying and mapping; water/wastewater engineering design projects; construction monitoring and testing operations; geotechnical investigation projects; and soils and concrete laboratory work in the region.

**US Army Corps of Engineers, Huntington, WV**

**Chief H&H and Technical Support Division, Great Lakes and Ohio River Dam Safety Production Center and Dam Safety Modification Mandatory Center of Expertise.** Mr. Meadows was responsible for developing and directing the Division's efforts to manage the regional execution of complex, non-routine, regional and inter-regional dam safety modifications, engineering assessments and risk and reliability analyses throughout the infrastructure capital stock portfolio of the U.S. Army Corps of Engineers. He primarily accomplished this mission through twelve senior technical staff (Hydraulic, Cost and Construction Engineers) who oversaw all complex technical aspects of modification work. He directed their work and provided them with strategic leadership, mentoring, coaching, counseling, team building, partnering, direction and management.

**Chief, Engineering and Construction Division.** Mr. Meadows was responsible to the District Commander for the Engineering and Construction functions associated with creating synergy between water resource development and the environment as it pertained to the Civil Works Program; responded to local, national, and global disasters; and provided full spectrum engineering and construction support to a geographic area comprising 45,000-square-miles. The district infrastructure includes 35 major flood control dams, nine locks and dam, and 29 major local flood protection projects. He provided technical, management, and strategic advice on engineering and construction matters. He directed a diverse staff of 215 team members engaged in all of the district's engineering design, construction, dam safety, levee safety, water management, flood damage reduction, navigation, flood proofing, and environmental enhancement, restoration and rehabilitation projects.



**Chief, Water Resources Engineering Branch, Engineering and Construction Division.** Mr. Meadows was responsible for planning, supervising and coordinating all hydrologic and hydraulic engineering, water control management and water quality activities of the Huntington District. These multiple discipline activities involved supervisory and program responsibility for studies, designs and reports through all stages of engineering investigations and planning, including preliminary examinations, surveys, review of surveys, urban studies, design reports and final construction plans and specifications for a wide variety of projects which included multiple-purpose projects for flood control, hydroelectric power development, navigation, water quality, and/or recreation, in various combinations, local flood protection projects, and channel improvement.

**In addition to the above positions, Mr. Meadows has served as the Chief, Environmental and Remediation Section, Construction Management and Field Support Branch, Chief, Civil Design Section, Design Branch, Chief Soils & HTRW Section, Geotechnical Branch.** He has also served as a Geotechnical Engineer, a Program Manager and a Hydraulic Engineer. During his career at the Corps he has worked on numerous projects such as the Yatesville Dam design and construction; West Columbus Floodwall, Williamson Central Business District Floodwall, Matewan Floodwall, Grundy Floodwall, Island Creek Flood Damage Reduction Project, Lower Mud Flood Damage Reduction Project and the Marlinton Flood Damage Reduction Project; R. C. Byrd, Winfield and Marmet Locks and Dam Replacement; Willow Island and Medahl hydropower additions; and the Bluestone, Zoar Levee, Dover, Bolivar, Beach City and Mohawk Dam Safety Modifications; and the Tom Jenkins Mineral Extraction. Mr. Meadows was responsible for the engineering and construction management of the Summit Equipment Remediation, American Car and Foundry Remediation, West Virginia Ordnance Works Remediation and Operations & Maintenance, Dolly Sods, and the PBOW Remediation and Operations & Maintenance; and the Zoar Levee Emergency

Repairs. Directly responsible for the development of Flood-proofing Guide Plans and Specifications that resulted in numerous savings and adopted across the USACE.



**Education**

Ohio State University  
BS and MS, Civil  
Engineering

**Professional Experience**

19 years

**Registrations &  
Licenses**

Registered Professional  
Engineer, OH & WV

**Skills Highlights**

- Storm water conveyance
- Wastewater Treatment
- Water distribution systems
- Storm water pollution control

**Highlights of Experience**

Mr. Yandrich is currently a Project Engineer for the Triad Engineering Utilities Group in the Athens, Ohio office. Mr. Yandrich has participated in review, development, and state and local permitting of a wide variety of projects including water, wastewater, "green" roof, structural, and electrical/renewable energy for various sites throughout Southeast Ohio, Kentucky, and West Virginia. Mr. Yandrich's educational background includes environmental engineering, ecological engineering, civil engineering, wastewater collection and treatment, storm water conveyance, water distribution systems, storm water pollution control, stream restoration, and wetland design and restoration. Mr. Yandrich has managed various construction projects including water, wastewater, structural, and electrical/renewable energy. His duties include project scheduling, coordination, budget management, client interaction, and project team coordination. In addition to the above mentioned activities, Mr. Yandrich also prepares proposals and estimates on larger, long term projects. Mr. Yandrich's duties have included hydrologic and hydraulic analysis and design, storm water management, drawing and specification preparation, construction inspection, shop drawing review, permitting, and report preparation and review. Mr. Yandrich completes engineering calculations, studies, plans, reports, and data analysis. Mr. Yandrich coordinates construction projects and conducts interim and final inspections of construction projects to determine compliance with applicable laws, regulations, and specifications.

**Relevant Project Experience**

**Village of Woodsfield, Ohio Water System**

This project includes the design and specification for retrofitting an existing lime-settling basin with automatic scrapers for labor reduction, the design of a booster station to enable sales of potable water to a neighboring water system through an existing water main, and the replacement and extension of an existing 2" water line with a 6" line to provide improved service and fire protection to residents. Mr. Yandrich was also responsible for writing the Village's preliminary engineering report to enable funding acquisition.

**Village of Jewett, Ohio Water System improvements**

This project consisted of the design and specification of equipment for the ultimate replacement of the Village's aging water treatment plant, entire distribution system, and water storage tanks. The project also entails the construction of a new source water well. Mr. Yandrich was also responsible for writing the Village's preliminary engineering report.

**Village of Amesville, Ohio Water System Improvements**

This project involves the construction of a new water treatment facility and a new water storage tank in order to replace the existing 55-year old facility. Mr. Yandrich is responsible for writing the preliminary engineering report, as well as for the design and specification of equipment to effectively treat the existing source of ground water. A new tank will replace the aging water storage tank. Mr. Yandrich is also responsible for the design of a new access road, structure to house the new treatment system, small wastewater treatment facility, a new source water well, and overall treatment system security.

**City of Toronto, Ohio Water System Improvements**

This project consisted of extensive replacement of aging cast-iron waterline in multiple areas of the City, as well as the construction of a new loop to improve water pressure and to serve an existing industrial facility. Mr. Yandrich was responsible for construction management and post-construction activities, including contractor payment, day-to-day reviews of construction progress, monthly progress meetings, and construction drawing updates and modifications.

**Town of Mason, WV, Wastewater Treatment Plant Upgrades**

This project consisted of the design and specification of an extended aeration plant rebuild, including headworks, primary aeration, and clarifiers. The project also consisted of the design of a new lift station and force main, and collection system improvements for I&I reduction. Mr. Yandrich was also responsible for the specification of a new maintenance garage at the facility.

For each of the following projects, Mr. Yandrich was responsible for permit application review, detailed plan and specifications review, hydraulic and capacity calculations, design review and recommendation, and permit recommendation and issuance. Mr. Yandrich also performed site evaluations and inspections to ensure compliance with all applicable rules and regulations.

**Mason County E Corp, Meigs County, Ohio**

Temporary holding tank and wetland-based wastewater treatment system.

**DLD One, LLC, Jefferson County, Ohio**

Sanitary sewer extension for a new Wall Mart Center.

**Various on-site systems including: Holiness Church Center, Clearview Primitives, Liberty Life Church, Gheen Equipment Rental, Guernsey County Sportsman for Conservation Club, North Star Metals, Porter Freewill Baptist Church, Stark Truss Company, Guernsey County Deputies F.O.P., Latham Limestone, Ludlow Township/Little Muskingum Development Corp., Apex Environmental LLC, Larry Mitchel Trucking Garage, McQuinn LTD, Valley Hospice, DESCO Federal Credit Union, Multiple Counties, Southeast Ohio**

These on-site systems included low pressure, mound, traditional leach, and holding tanks.

**Norfolk Southern Railway Company, Scioto County, Ohio**

This project consisted of modifying one primary settling pond into two parallel ponds with concrete bottom for easy cleaning. Mr. Yandrich reviewed all environmental permitting applications, detailed plans, and performed hydraulics calculations in order to determine project effectiveness.

**Apex Sanitary Landfill, Jefferson County, Ohio**

The project utilized a proprietary "SCAT" system and low pressure distribution to serve a new office building at a landfill.

**Village of Wintersville, Jefferson County, Ohio**

Sanitary sewer replacement at the Beechwood Area/Rt43 Floyd Easement area.

**Barbers Hollow WWTP, Jefferson County, Ohio**

The project consisted of new Influent screens for the Barber's Hollow WWTP.

**Jefferson County Joint Vocational School, Jefferson County, Ohio**

Sanitary sewer extension to the Jefferson County "M".

**Wheelersburg Local School District, Scioto County, Ohio**

Sanitary sewer extension for a new K-12 School

**M & J Industries, LLC, Scioto County, Ohio**

A new grinder pump station with a discharge to the Southern Ohio Correctional POTW

**City of Portsmouth Lawson Run WWTP, Scioto County, Ohio**

Conversion of the plant's old anaerobic sludge digestion system to ATTAD process.

**GENPRO, LLC (Mission Pointe Sub), Jefferson County, Ohio**

Sanitary sewer extension for new condominiums to the existing city of Steubenville wastewater collection system.

### Highlights of Experience

Mr. Campbell is currently a Project Engineer for the Triad Engineering Utilities Group in the Athens, Ohio office. Mr. Yandrich has participated in review, development, and state and local permitting of a wide variety of projects including water, wastewater treatment facility and distribution and collection lines. . Tim has over 22 years of experience in managing and designing water and wastewater projects. Tim has extensive experience in providing environmental and engineering consulting services in the wastewater field through project planning, design and construction oversight. Tim has managed storm water and pretreatment programs to facilitate compliance with federal and state water quality regulations.

Mr. Campbell's educational background includes environmental engineering, ecological engineering, civil engineering, wastewater collection and treatment, storm water conveyance, water distribution systems, storm water pollution control, stream restoration, and wetland design and restoration. Mr. Campbell has managed various construction projects including water, wastewater, and stormwater management and treatment. Mr. Campbell also prepares proposals and estimates on larger, long term projects. Mr. Campbell's duties have included hydrologic and hydraulic analysis and design, storm water management, drawing and specification preparation, construction inspection, shop drawing review, permitting, and report preparation and review. Mr. Campbell completes engineering calculations, studies, plans, reports, and data analysis. Mr. Campbell coordinates construction projects and conducts interim and final inspections of construction projects to determine compliance with applicable laws, regulations, and specifications.

### Relevant Project Experience

#### **Village of Hopedale, Ohio Water System**

This project includes the design and specification for upgrading the Village's Wastewater Treatment Plant. Initially Mr. Campbell performed an extensive Inflow and Infiltration Study of the entire waste treatment system including all manholes and collection lines. Upon the completion of the I&I study, a Preliminary Engineering Report was prepared. Mr. Campbell performed the project design for improvements to the Wastewater Treatment Plant consisting of 3 pump stations, flow EQ tank, tertiary disk filters, UV disinfection, sludge polymer system and sludge drying bed.

#### **Dunfalls Association, Muskingum County, Ohio**

This project consisted of the design and construction document preparation for Improvements to the wastewater treatment system. The upgrades consisted of influent solids removal and a sludge digester for sludge handling.

#### **Various WWTP Package Systems, Muskingum and Noble County, Ohio**

These projects consisted of the design of tertiary filters and UV disinfection systems for package wastewater treatment facilities.

#### Education

Ohio University  
BS, Civil Engineering

#### Professional Experience

22 years

#### Registrations & Licenses

Registered Professional  
Engineer, OH

#### Skills Highlights

- Storm water conveyance
- Wastewater Treatment
- Water distribution systems





**Education**

West Virginia University  
BA, *Business Administration*

West Virginia State  
University, Associate  
Degree Mathematics

**Professional Experience**  
26 years

**Skills Highlights**

- Funding Assistance
- Facilitates between Client and Funding Agency
- Project Status Reports
- Rate Analyses
- Asset Management Plans

**Highlights of Experience**

Ms. Grimm is a Project Coordinator for the Utility Group in the Scott Depot, WV office. Ms. Grimm has over 26 years of project management and funding experience. She is responsible for funding acquisition assistance to clients for water and wastewater projects, facilitating communication between Triad's clients and funding agencies, processing and tracking draw down of funds, supporting senior level engineers on impact of project costs to utility charges, preparation of status reports and facilitating and attending community meetings. Ms. Grimm also works with senior level engineers in preparation of asset management plans and utility rate analyses for clients.

**Relevant Project Experience**

**West Virginia Department of Environmental Protection – Charleston, WV**  
Ms. Grimm has 26 years of experience as a project manager and Community Development Specialist II with the WV Department of Environmental Protection (WVDEP) Clean Water State Revolving Fund Program. In this capacity, she reviewed grant/loan applications for compliance, cost and accuracy in such areas as financial documentation, public notification, civil rights, engineering contract review, professional contract review, federal and state compliance, etc. She also provided recommendations for grant/loan applications with highest need priority. Other responsibilities in this position consisted of the review of supporting invoices and recommendations for monthly payment reimbursement requests, allowable project extension approvals and final payment and closure of loan reimbursements. She also monitored monthly contracts for the local administration of state and federal grants/loans to assure funds were properly spent and appropriate records maintained. She was also responsible for preparing monthly project progress reports. She investigated infrastructure development needs through meetings with state, regional and local governmental officials, community leaders, and private sector parties. She provided local officials and contractor's guidelines in establishing files, financial records systems, record keeping and retention, purchasing procedures, audit requirements and reporting requirements, both federal and state related. She also participated in local workshops and meetings to advise local officials and other interested parties of programs and educated officials in grant/loan application procedures and grant/loan administration.



#### Education

BS, Civil Engineering,  
West Virginia Institute of  
Technology

#### Professional Experience

19 Years

#### Registrations & Licenses

- Professional  
Engineer, WV, KY &  
OH

#### Skills

- Civil Engineering
- Transportation  
Engineering
- Site Development
- Planning and  
Surveying

### Highlights of Experience

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.

### Relevant Project Experience

#### 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. Mr. McCoy is also responsible for all sanitary sewer collection and water system distribution design for the development.

#### Child Development Center Sewer Line Extension, Hanging Rock, Ohio

As lead engineer on this project, Mr. McCoy is responsible for the initial study to determine the most feasible and cost effective method for upgrading the existing sanitary sewer collection system. Based on the results of the study, the option of extending the line to the City of Ironton, Ohio's Waste Water Treatment Plant was chosen. The project includes several thousand feet of 3 inch diameter force main line, booster stations, and road and creek crossings.

#### Federal Express Ground Distribution Center – Cross Lanes, WV

As Project Manager and Lead Designer, Mr. McCoy prepared construction documents for the development and construction of a 10 acre site to accommodate a distribution center and associated parking and access drives. This project included grading, drainage, detention, roadway expansion, parking lot design, utility design including water and sanitary sewer, water quality design as well as many other aspects.

#### Commerce Park – Huntington, WV

As Project Manager and Lead Engineer, Mr. McCoy, is responsible for the project design and construction administrative services for a large use development located in Huntington, WV. This development consists of affordable housing apartments, flex space warehousing and office space. This project includes grading, drainage, stormwater management, permitting, parking lot design, as well as many other aspects.

**Amazon Call Center – Huntington, WV**

As Project Manager and Lead Designer, Mr. McCoy prepared construction documents for the construction of a 70,000 square foot call center with 9 acres of parking in Huntington, WV. This facility houses over 800 customer service employees. This project includes grading, drainage, detention, roadway expansion, parking lot design, utility design including water and sanitary sewer, water quality design as well as many other aspects.

**DirecTV Call Center – Huntington, WV**

As Project Manager and Lead Designer, Mr. McCoy prepared construction documents for the construction of a call center just outside Huntington, WV. This facility houses DirecTV's customer service employees. This project includes grading, drainage, detention, roadway expansion, parking lot design, utility design including water and sanitary sewer, as well as many other aspects.

**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.

**Logan Embankment Failure Repair – Logan, WV**

As Project manager and Lead Civil Designer, Mr. McCoy prepared construction documents for the repair of 4 landslides within the City of Logan. Project coordination was with the city and FEMA as

the slides were attributed to local storm runoff. These landslides posed both access issues as well as safety issues to residents. The slides were encroaching on a structure in one case, access to the McCoy-Hatfield recreational trail, and were encroaching on city streets rendering them dangerously narrow with nearly vertical drop offs. Repairs varied from drilled pile walls to soil nailing. The repairs were designed to stabilize the slides and restore city streets to pre-slide conditions.

**Bayer CropScience – Institute, WV**

As Project manager and Lead Civil Designer, Mr. McCoy prepared construction documents for the expansion for Bayer CropScience's Hazardous Waste Landfill in Institute, WV. The project included grading, drainage and the design of landfill liner and closure features including both earthen and synthetic liners and drainage features.

**William Sharpe Hospital Expansion– Weston, WV**

As Project Manager and Lead Civil Designer, Mr. McCoy prepared construction documents for site infrastructure for a 50 bed expansion to the existing William Sharpe Hospital Expansion. This project includes grading, drainage, detention, roadway expansion, parking lot design, utilities as well as many other aspects.

**King's Daughters Medical Center – Various Locations in KY and OH**

As Project Manager and Lead Designer, Mr. McCoy prepared construction documents for the construction of numerous medical office buildings throughout Ohio and Kentucky. These projects include grading, drainage, detention, roadway expansion, parking lot design, utilities as well as many other aspects. Following is a list of more specific project locations:

**Sheetz Store, Eisenhower Drive, Beckley, WV**

As Project Manager and Lead Designer, Mr. McCoy prepared construction documents for the construction of a gas station/convenience store in Beckley, WV. This project includes grading, drainage, detention, roadway expansion, parking lot design, water quality design as well as many other aspects.



#### Education

Fairmont State College,  
WV, BS, Civil Engineering

#### Professional Experience

11 Years

#### Registrations & Licenses

- Registered Professional Engineer, WV

#### Skills

- Geotechnical Evaluations
- Energy Sector
- Environmental Assessments
- Permitting
- Construction Materials Testing and Inspections

### Highlights of Experience

Mr. Lipscomb is currently a Department Manager for Geotechnical Engineering Section and Senior Engineer at the St. Albans branch of TRIAD. In this capacity, he has been involved in development and management of subsurface exploration projects and development of geotechnical engineering reports providing recommendations based on field observations and laboratory results for bearing capacity, earthwork operations, earthen dam embankments, slope stability, flexible and rigid pavement design, lateral earth pressures, sinkhole remediation, geophysics (electrical resistivity and ground penetrating radar), and rock excavation. These projects have included freshwater dams, shopping centers, roadway/bridges, buildings, retaining walls, residential communities, water storage tanks, waste water treatment facilities, and structures for coal mining facilities. Duties included assignment of laboratory testing, visual inspection of soil/rock specimens, geophysics, and earthen embankment evaluation. Mr. Lipscomb has additional experience in areas relating to civil site design, hydrologic and hydraulic design, grading plans, water line plans, sewer line plans, hydraulic calculations, storage tank sizing, booster station design, roadway layout and design, storm water management plans, technical specifications, environmental and regulatory permitting, blast monitoring, and construction quality control.

### Relevant Project Experience

#### Subsurface and Foundation Explorations (WV, VA, MD, KY, and OH)

Mr. Lipscomb has performed subsurface and foundation explorations for various private business and industrial firms. The projects consisted of performing subsurface explorations and analysis and recommending appropriate foundation types based on the results of the subsurface exploration. The projects also involved estimating potential settlement, delineating potential subsurface problems, and providing related recommendations regarding the geotechnical aspects of the projects. A geotechnical report was prepared and provided to the client for each project. Mr. Lipscomb has also designed foundation systems for buildings and other structures.

#### Water Distribution System Upgrades (Boone, Wayne, Berkley, Lincoln, and Logan Counties, West Virginia)

Mr. Lipscomb has served as the project engineer for the detailed design of over 30 miles of water line extensions and associated appurtenances, including the preparation of construction drawings, water storage tank sizing and design, booster station design, hydraulic calculations, technical specifications, cost estimates, contractor's bid documents, review and recommendation of contractor's bids, and review of shop drawings.

#### Water System Upgrade Projects

- Six Mile Water Line Extension – Boone County, WV
- Joe's Creek Water Line Extension – Boone County, WV
- Lick Creek Water Line Extension – Boone County, WV
- Trace Branch Water Line Extension – Boone County, WV
- Town of Ceredo – Wayne County, WV
- Mifflin-Sharples Water Line – Logan County, WV
- Mingo Logan Coal Company – Logan County, WV



**Dominion Transmission, Inc. (Chelyan, West Virginia)**

As project engineer, Mr. Lipscomb processed information gathered during drilling activities and developed a report of subsurface exploration to aid in the design of a horizontal directional drilling project under the Kanawha River in Kanawha County, West Virginia. This included providing rock core unconfined compression test results, and performing a review of rock core samples to observe their Mohs Scale of Mineral Hardness values. Regional geologic information was also given to aid in the project's design.

**United Coal Company (Crab Orchard, West Virginia)**

As project engineer, Mr. Lipscomb performed geotechnical analysis of the site subsurface conditions and provided foundation recommendations for new coal preparation plant components planned to improve an existing facility. New coal preparation plant components included in the project consisted of a main coal preparation plant building, a raw coal reclaim tunnel, raw and clean coal stock piles (including stacker tubes), a loadout unit, and a refuse bin. Mr. Lipscomb recommended the use of cast-in-place concrete caissons for the majority of the proposed components due to underlying fill of unknown origin and variable content. Cast-in-place concrete caisson design parameters were provided for each of the proposed components, and spread foundation design parameters were provided for the refuse bin as an alternative to cast-in-place concrete caissons.

**Putnam County Schools (Putnam County, West Virginia)**

Mr. Lipscomb served as the project engineer for the subsurface exploration at multiple Putnam County School projects. His responsibilities on the projects included scheduling and coordination of drilling activities, oversight of assignment for laboratory analysis of soil samples collected during drilling activities, developing boring logs, performing estimated settlement calculations, developing foundation recommendations, and composing a report of subsurface exploration for the individual

projects.

**Civil/Site Design Projects (West Virginia, and Virginia)**

Mr. Lipscomb has civil/site design experience related to the development of grading plans, cut/fill analysis, utility design/layout, hydrological analysis, hydraulic evaluations of open channel flow systems, storm sewer design, stormwater retention/detention design, sediment control structure design, preparation of permit applications, and consulting with clients, architects, regulatory agencies, and municipalities.



**Professional Experience**  
26 years

**Registrations**

- Licensed Professional Surveyor-WV & NC
- FEMA Certified Flood Plain Surveyor

**Skills Highlights**

- Construction Layout
- Right of Way Plans
- Photogrammetric and Topographic Surveying
- Mine Surveying

**Highlights of Experience**

Mr. Kirk 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. Kirk is experienced in, construction layout, boundary and road work surveying, photogrammetric and topographic surveying. He has supervised and/or performed survey work on various types of work including surface mine surveying for coal mine facilities, site surveys and construction layout for landfill facilities, site surveys and right of way plans for WVDOH and NCDOT highway projects, and site surveys and construction layout for site development projects. Mr. Kirk has been involved in survey projects in several states including West Virginia, South Carolina and North Carolina.

In his supervisory capacity, he 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.

**Relevant Project Experience**

***City of Raleigh-Raleigh, North Carolina***

**Buffalo Road Sanitary Sewer Collector Easement Acquisition Survey**

As Surveyor-of-Record, provided direct supervision of various field crews and conducted field surveys for right-of-way acquisition, topographic location, and wetlands delineation surveys for an approximately 6000 LF sanitary sewer line. Project consisted of field work necessary to compile and prepare recordable plats of survey for easement acquisition by the City of Raleigh. Topographic mapping for design purposes, and the preparation of Wetlands Delineation Maps to secure 404(c) permits through the US Army Corps of Engineers (Wilmington District).

***North Carolina Department of Transportation-Warren County, North Carolina***

**State Route 1608 – Will Cheek Road**

**State Route 1620 – Sherriff Davis Road**

As Surveyor-of-Record / Data Analyst contracted to NCDOT, provided direct supervision of various field crews and conducted field surveys for right-of-way acquisition and topographic location surveys for roadway improvements. Project consisted of field surveys conducted per Federal Highway Administration High Risk Rural Roads specifications for approximately 3.5 miles of local rural roads in Warren County NC including deliverable plan sets prepared per NCDOT/NC MAPS specifications. Final field work consisted of setting Right-of-Way monumentation and staking of best-fit centerline of road alignment.

***North Carolina Army National Guard-Morrisville, North Carolina***

**Professional Services 2005 / Construction Completed**

Surveyor of Record / Field Supervisor providing construction staking and layout of Crash, Fire and Rescue (CFR) Facilities Building supporting the 1<sup>st</sup> of 130<sup>th</sup> Aviation Battalion (AH-64 Apache Helicopter unit) based at Raleigh Durham International Airport. Operations were conducted in close coordination with Federal Aviation Administration and NC National Guard personnel to provide layout services for the construction of an approximately \$1.3 million facility.

**Triangle Transit Authority (TTA)-Raleigh, Durham, Chapel Hill Triangle Area of North Carolina  
Regional Transit Plan – Phase I Regional Rail – Durham to North Raleigh**

As Surveyor-of-Record / Data Analyst, provided direct supervision of various field crews and CAD technicians for Subsurface Utilities Engineering location surveys and gravity utilities mapping for a 40 mile railway corridor in support of design efforts for a regional rail service route. Field work and deliverables preparation were conducted in accordance with Federal Railway Administration, CSX Railroad, NC Railroad, and North Carolina Department of Transportation Rail Division specifications and guidelines. Being a controversial project, construction is still pending with a capital cost estimate of \$754 million.

**Raleigh-Durham Airport Authority (RDUAA)-Morrisville, North Carolina**

Professional Services 2000-2003 / Construction completed & ongoing

Surveyor-of-record for long-term on-call contract to provide professional services to the Raleigh Durham Airport Authority providing, boundary surveys, topographic location, as-built surveys, subsurface utilities location, construction verification and construction layout for various on-site improvement and expansion projects. Provided coordinative support/project management for various design and engineering firms for the development of the RDU Airport Authority's Master Plan for future development and improvement of RDU International Airport. As one of the few non-employees to ever be granted limited movement privileges at RDU, coordinated airside survey operations (night-time and day-time conditions) with Ground Traffic Controller and FAA personnel on-site.



**Professional Experience**  
30 years

**Registrations**

- Licensed Professional Surveyor-WV & PA
- Certified 40 Hr. HAZWOPER

**Skills Highlights**

- Underground Surveying
- Construction Layout
- Boundary and Road Work Surveying
- Surface Mine Surveying

**Highlights of Experience**

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. He 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, he 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.

**Relevant Project Experience**

**WVDOT Highway Projects, Various Highway Engineering Consultants**

Mr. Clark's expertise includes several WVDOH 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 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 and Chelyan Bridge - Kanawha County, WV.

**Retail Development, Construction Surveying**

Mr. Clark's experience as a construction layout surveyor includes multiple site design and construction layout projects. Notable projects include the construction layout of the Nitro Market Place retail Center in Nitro, WV, Southridge Retail Center, Charleston, WV, Devonshire Luxury Housing Site, Putman County WV, Ripley Hudson Housing Development, Jackson County, WV; Donnel Kinnard Memorial Cemetery, Dunbar WV; numerous retail restaurants, including Arby's, Burger King, Wendy's, O'Charley's. Retail stores include Walgreen's, Rite Aid, Wal-Mart, Lowes. Work on these projects included establishing horizontal and vertical control, staking out the buildings as per the instruction of the Project Superintendent, laying out drainage, sewage, paving and curbing with grades.





**Education**

Belle High School

**Professional Experience**  
19 years

**Registrations**

West Virginia Department  
of Highways Compaction  
Inspector  
West Virginia Department  
of Highways Aggregate  
Sampler  
West Virginia Department  
of Highways Portland  
Concrete Inspector  
ACI Level 1 Concrete  
Technician  
Smoke Certification  
OSHA 40 Hour Hazardous  
Waste Operations  
MSHA Certificate of  
Training  
Pervious Concrete  
Technician  
Trenching and Excavation  
Competent Person  
Troxler 8 Hour Nuke  
Safety and Operation  
Troxler Radiation Safety  
Officer Training  
40 OSHA Training  
MSHA Impoundment  
Inspector Training ACI

**Highlights of Experience**

Mr. Fleck is currently a Senior Engineering Technician at the Southwestern Region of Triad. Mr. Fleck duties in this role have included quality control testing and inspection of soil, concrete, structural steel and asphalt. Mr. Fleck has supervised as many as 2 engineering technicians on projects. He has provided project inspection and Quality Assurance/ Quality Control services on numerous building, site and highway and bridge projects throughout West Virginia. In addition, Mr. Fleck also trains newer technicians, and handles all job specific reporting.

**Relevant Project Experience**

Mr. Fleck has performed Quality Control Testing and Inspection on Numerous Highway/Bridges projects, Industrial and Commercial projects. He has provided these services throughout our service area of operations as can be seen on the following representative project list.

**Highway / Bridge Projects**

Route 10 Upgrades - Logan to Man, West Virginia  
Johnson Creek Bridge - Alta, West Virginia  
Shadle Bridge - Point Pleasant, West Virginia  
Jefferson Ave. Bridge - Huntington, West Virginia  
I-64 Upgrade - Cross Lanes, West Virginia  
Darnell Road Overpass - Huntington, West Virginia  
King Coal Highway - Mingo County, West Virginia

**Building Construction & Site Development**

Fountain Place - Logan, West Virginia  
Lowe's - Lexington, Kentucky  
Cabell Huntington Hospital Additions - Huntington, West Virginia  
Pullman Square - Huntington, West Virginia  
Huntington Post Office - Huntington, West Virginia  
Lakin Correctional Facility - Lakin, West Virginia  
Marshall University Foundation Center - Huntington, West Virginia  
King's Daughters Medical Center - Ironton, Ohio  
Milton Middle School - Milton, West Virginia  
Devonshire - Scott Depot, West Virginia

**Industrial**

Buchannon #1 Mine - Oakwood, Virginia  
Mingo/Logan Coal - Horse Pen Mtn., West Virginia  
Catenary Coal, Campbell's Creek complex - Point Lick, West Virginia  
East Beckley WWTP - Beckley, West Virginia  
Bradley WWTP - Bradley, West Virginia  
Wood County Airport - Parkersburg, West Virginia  
Bee Run Dam - Wallback, West Virginia  
Elkwater Dam - Huttonsville, West Virginia

# PROJECT EXPERIENCE

## **WASTEWATER COLLECTION SYSTEM IMPROVEMENTS TOWN OF BELLE, WEST VIRGINIA**

### Project Description

The project consisted of the investigation and remedial measures for a severe Inflow and Infiltration problem with the Town of Belle's wastewater collection and treatment system. TRIAD conducted an extensive investigation including system mapping, Closed Circuit Television (CCTV) of over 15 miles of collection line, smoke testing, manhole inspections, and evaluation of problem areas. Upon review of the inspection and subsequent report performed and provided by TRIAD, it was decided that it was more economical to slip line the existing pipe and to rehabilitate the existing manholes.

The project included relining over 13,000 LF of existing sewer line, replacement and/or rehabilitation of approximately 80 manholes, and rehabilitation of the 13<sup>th</sup> Street pump station.



Services provided by TRIAD ENGINEERING included surveying and mapping to generate an existing conditions site map of the pipe routes and manhole and inlet locations, assistance obtaining project funding, obtaining permits from the West Virginia

Department of Protection generation of and packages. provided administration observation construction



Environmental (WVDEP), design drawings construction bid TRIAD also construction and construction services during the process.

# PROJECT EXPERIENCE

## Project Completion

August, 2009

## Project Cost:

Total Project Cost: \$1,945,100  
Construction Cost \$1,237,434 (Bid)

Under budget – Assisted Town in obtaining funding agency approval to use balance of funds to rehabilitation additional areas of the collection system and to purchase lab equipment.

## Project Contact

Honorable Glen Chestnut, Mayor  
Town of Belle  
1100 East Dupont Avenue  
Belle, West Virginia 25015  
(304) 949-3841



(04-07-0236)

## PROJECT EXPERIENCE

# **WASTEWATER TREATMENT FACILITIES AND COLLECTION SYSTEM IMPROVEMENTS TOWN OF NEW HAVEN, WEST VIRGINIA**

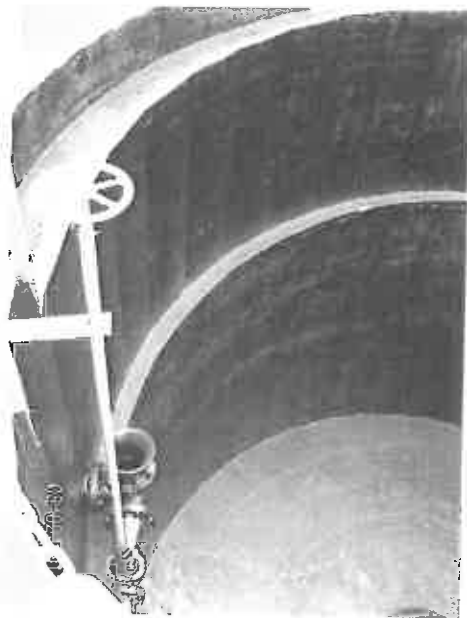
### Project Description

The project consisted of the investigation and remedial measures to upgrade the wastewater collection system and treatment facilities. The purpose of this project was to improve a significant inflow and infiltration (I/I) problem, increase the collection system capacity, and address Public Service Commission and West Virginia Department of Environmental Protection (WVDEP) Consent Orders regarding I/I problems and power outages. In addition, a more stable support system was needed for the aerial bridge pipe crossing than the power poles that were driven into the creek bed.

Part of the challenge for this project was to keep the existing system operating during construction of the upgrades and improvements. This was achieved by a well thought and strictly implemented construction sequencing plan. The project included upgrading replacing approximately 7,370 LF of gravity line, 28



manholes and one (1) pump station. A portion of the replaced gravity line included an aerial bridge pipe crossing.



The wastewater treatment plant improvements consisted of expanding the headworks and installing a new automatic bar screen, replacing the existing aeration blowers, converting the existing sludge holding to an aerobic digester, upgrading the electrical system and installing two (2) new pump stations to split the plant flow.

Services provided by **TRIAD ENGINEERING** included surveying and mapping to generate an existing conditions site map of storm and sanitary sewer pipe routes and manhole and inlet locations, assistance obtaining project funding, obtaining permits from the

West Virginia Department of Environmental Protection (WVDEP), generation of design

## PROJECT EXPERIENCE

drawings and construction bid packages. TRIAD also provided construction administration and construction observation services during the construction process.

### Project Completion

Summer 2011

### Project Cost

Total Project Cost: \$3,277,500  
Construction Cost \$2,527,159 (Bid)

Under budget – Assisted Town in obtaining funding agency approval to use balance of funds to do additional rehabilitation work at the WWTP.

### Project Contact

Honorable Charles Yonker, Mayor  
Town of New Haven  
218 5<sup>th</sup> Street  
New Haven, West Virginia 25562  
(304) 882-3203



## PROJECT EXPERIENCE

### **WASTEWATER TREATMENT FACILITIES, COLLECTION SYSTEM AND PUMP STATION IMPROVEMENTS TOWN OF PRATT, WEST VIRGINIA**

#### **Project Description**

The project consisted of investigation and remedial measures to upgrade the wastewater collection system and pump stations, and to provide needed repairs and equipment at the treatment facility for the Town of Pratt, West Virginia. The purpose of this project was to improve a significant inflow and infiltration problem, increase the collection system capacity, and address a West Virginia Department of Environmental Protection (WVDEP) Consent Order.

The project entailed the replacement of 790 feet of existing 8-inch and 90 feet of existing 6-inch gravity sewers including one (1) railroad crossing, replacing 16 existing manholes, sealing 21 existing manholes with epoxy, and providing 45 various other repairs to existing manholes. Also included was the complete refurbishing of two (2) existing pump stations and the elimination of a third existing pump station which met the WVDEP Consent Order, requiring the elimination of a sewer overflow. This was achieved by designing 560 feet of new 10-inch gravity sewer to connect two different gravity collection zones. The new line required 10 manholes and a highway crossing to accomplish the pump station abandonment.



Additionally, the project provided new chlorination and sulfonation systems, a perimeter security alarm system, a spare blower with motor, a new sludge pump, additional flow metering and miscellaneous laboratory equipment at the wastewater treatment facility, replacement of the chlorine line and chlorine tank valve.

Services provided by TRIAD ENGINEERING included surveying and mapping to generate an existing conditions site map of storm and sanitary sewer pipe routes and manhole and inlet locations, manhole inspections and smoke testing of the collection system, assessments of existing pump stations and the treatment facility, assistance obtaining project funding, obtaining permits, the preparation of application forms and drawings for an occupancy agreement with CSX Railroad, and the generation of design drawings

## PROJECT EXPERIENCE

and construction bid packages. TRIAD also provided construction administration and construction observation services during the construction process.

### Project Completion

Spring 2015

### Project Cost

Total Project Cost: \$1,434,700

Construction Cost: \$922,125 (Bid)

Under budget – Assisted Town in obtaining funding agency approval to use balance of funds to make additional improvements at the WWTP.

### Project Contact

Honorable Eric Holcomb, Mayor  
Town of Pratt  
PO Box 128  
Pratt, West Virginia 25162  
(304) 442-4731





## PROJECT EXPERIENCE

# **WASTEWATER TREATMENT PLANT AND COLLECTION SYSTEM IMPROVEMENTS – PHASE I TOWN OF MASON, WEST VIRGINIA**

### Project Description

The project consisted of the rehabilitation of the existing external clarifier and Park pump station and rehabilitation of approximately 75 manholes. The purpose of this project was to improve a significant inflow and infiltration problem, to replace dilapidated equipment at both the wastewater treatment plant and a pump station.

At the wastewater treatment plant, the project entailed the replacement of the secondary clarifier equipment – drive unit, control panel, stiling well, sludge scraper, and torque tube; and the replacement of the screening carts. An emergency generator and automatic transfer switch were purchased and installed at the Park pump station, above the 100-year floodplain. Miscellaneous equipment was purchased for the Town: utility truck, sewer jetter to clean the sewer lines, and a sewer inspection camera to conduct their own sewer system evaluations.



The improvements that were made to the manholes to reduce the inflow and infiltration consisted of replacing broken manhole lids and/or rings, raising manhole lids that are depressed below ground with grade rings, excavating buried manhole lids and raising them to existing grade with grade rings, replacing manholes that were in extremely poor condition, coating the interior of manholes with non-shrink grout or hydraulic cement, replacing manhole steps that were in poor condition or missing, and removing debris that was built-up in the manhole inverts and on the walls.

Services provided by **TRIAD ENGINEERING** included surveying and mapping to generate an existing conditions site map of the sanitary sewer pipe routes and manhole locations, manhole inspections and smoke testing of the collection system, assessments of existing pump stations and the treatment facility, assistance obtaining project funding, obtaining permits, and the generation of design drawings and construction bid packages. **TRIAD** also provided construction administration and construction observation services during the construction process.



# PROJECT EXPERIENCE

## Project Completion

April 2010

## Project Cost

Total Project Costs: \$663,100  
Construction Cost: \$512,700 (Bid)

Under budget – Assisted Town in obtaining funding agency approval to use balance of funds to do additional work at the WWTP & pump stations, purchase a computer for billing, and lab equipment.

## Project Contact

Honorable Donna Dennis, Mayor  
Town of Mason  
PO Box 438  
Mason, West Virginia 25260  
(304) 773-5200



(04-07-0380/04-10-0064)

## REFERENCES

Mr. Glen Chestnut, Mayor  
Town of Belle  
1100 East Dupont Avenue  
Belle, WV 25015  
304-949-3841  
Wastewater projects

Donna Dennis, Mayor  
Town of Mason  
1601 Second Street  
Mason, WV 25260  
304-773-5200  
Water & wastewater projects

Mr. Charles Yonker, Mayor  
Town of New Haven  
P.O. Box 217  
New Haven, WV 25598  
304-882-3203  
Water & wastewater projects

Mrs. Sheila Kessler, Mayor  
Town of Matewan  
306 McCoy Alley  
Matewan, WV 25678  
304-426-4092  
Water project

Mr. Marty Mariotti, General Manager  
Green Valley-Glenwood PSD  
P.O. Box 6099  
Bluefield, WV 24701  
304-325-6832  
Water project

Mrs. Lisa Prather, Mayor  
Town of Camden on Gauley  
P.O. Box 96  
Camden on Gauley, WV 26208  
304-226-3625  
Water project

Mr. Charles Blair, Mayor  
Town of East Bank  
201 Walnut Street  
East Bank, WV 25067  
304-595-1605  
Water project

Mr. David Spencer, Grant Administrator  
Town of Racine  
405 Main Street  
Racine, OH 45771  
740-949-2296  
Wastewater projects

Greg O'Neal, Board Member  
Arbuckle PSD  
PO Box 369  
Minden, WV 25879  
304-465-8600  
Wastewater project

Ms. "Angie" Vealey, CFO/Office Mgr  
Sissonville PSD  
6438 Sissonville Drive  
Sissonville, WV 25320  
304-984-3396  
Wastewater project

## OUR SERVICES

- ◆ Civil Engineering
- ◆ Geotechnical Engineering
- ◆ Environmental Services
- ◆ Survey and Mapping
- ◆ Landscape Architecture
- ◆ Mine Permitting
- ◆ Construction Monitoring
- ◆ Drilling and Sampling
- ◆ Laboratory Testing



**Pipostem**  
RESORT STATE PARK

### PENNSYLVANIA

500 Bursca Drive, Suite 504  
Bridgeville, PA 15017  
(412) 257-1325

### MARYLAND

1075-D Sherman Avenue  
Hagerstown, MD 21740  
(301) 797-6400

### VIRGINIA

200 Aviation Drive  
Winchester, VA 22602  
(540) 667-9300

21641 Beaumeade Circle  
Suite 300  
Ashburn, VA 20147  
(703) 729-3456

### WEST VIRGINIA

1097 Chaplin Road  
Morgantown, WV 26501  
(304) 296-2562

10541 Teays Valley Road  
Scott Depot, WV 25560  
(304) 755-0721

### OHIO

1005 East State Street  
Suite 10  
Athens, Ohio 45701  
(740) 249-4304

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