

February 22, 2019

Attn: Mr. Guy Nisbet  
2019 Washington Street East  
Charleston, WV 25305

*RE: Expression of Interest - Water Line Replacement at Various State Parks - AEOI DNR19\*05*

Dear Mr. Nisbet and members of the selection committee:

The Division of Natural Resources has four parks with failing water distribution systems that are experiencing frequent leaks and are beyond their useful life. Thrasher would like to restore these systems to their fully functioning capacity by replacing the water lines at Babcock, Chief Logan, North Bend, and Watoga State Parks.

We built our company on serving the public utility sector and have done so to great success over the past 35 years. Our team is highly experienced in all facets of the water world, from line replacements to service extensions and everything in between, giving us the necessary knowledge to complete these projects efficiently and effectively.

This knowledge also sets us up to be more than just your contracted company – we will be your true partner throughout these projects. Our staff members will be able to guide you through the water line replacement process, advising you on any issues that may arise and doing everything in their power to ensure minimized long-term maintenance.

As a West Virginia-based company, we take pride in projects that so clearly have an impact on the well-being of the Mountain State. We appreciate the opportunity to partner with the WVDNR and support a mission that fits so closely with our own. We look forward to hearing from you and further discussing your project needs.

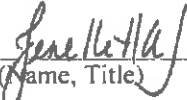
Sincerely,  
THE THRASHER GROUP, INC.



Daniel Ferrell, PE  
Project Manager

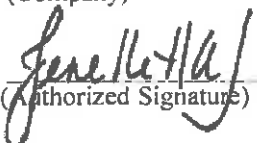
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2019 FEB 20 AM 10:31  
WV PURCHASING  
DIVISION  
Opened to Determine Contents

**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)  
Jenelle Armstrong, PE - Principal  
\_\_\_\_\_  
(Printed Name and Title)  
600 White Oaks Boulevard, Bridgeport, WV 26330  
\_\_\_\_\_  
(Address)  
304-624-4108 / 304-624-7831  
\_\_\_\_\_  
(Phone Number) / (Fax Number)  
jarmstrong@thetrashergroup.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.

The Thrasher Group, Inc.  
\_\_\_\_\_  
(Company)

  
\_\_\_\_\_  
(Authorized Signature) (Representative Name, Title)  
Jenelle Armstrong, PE - Principal  
\_\_\_\_\_  
(Printed Name and Title of Authorized Representative)

February 14, 2019  
\_\_\_\_\_  
(Date)

304-624-4108 / 304-624-7831  
\_\_\_\_\_  
(Phone Number) (Fax Number)

STATE OF WEST VIRGINIA  
Purchasing Division

**PURCHASING AFFIDAVIT**

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

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

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

**DEFINITIONS:**

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

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

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

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

**WITNESS THE FOLLOWING SIGNATURE:**

Vendor's Name: The Thrasher Group, Inc.

Authorized Signature: *[Signature]* Date: 2/14/19

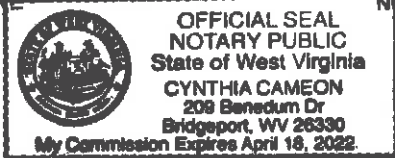
State of West Virginia

County of Harrison, to-wit:

Taken, subscribed, and sworn to before me this 14<sup>th</sup> day of February, 2019.

My Commission expires April 18, 2022.

AFFIX SEAL HERE



NOTARY PUBLIC

*[Signature]*

Purchasing Affidavit (Revised 01/10/2018)

**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.

**The Thrasher Group, Inc.**

Company \_\_\_\_\_

  
Authorized Signature \_\_\_\_\_

February 14, 2019

Date \_\_\_\_\_

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

Revised 05/02/2012

## MISSION

To improve the communities where we live and work by driving infrastructure development.

## CORE PRINCIPLES

Quality  
Safety  
Adaptability  
Integrity



# 9

**OFFICES**  
in six states:

- West Virginia
- Virginia
- Pennsylvania
- Ohio
- Maryland
- Kentucky



# 580

**EMPLOYEES**

- 34** Licensed Professional Engineers
- 20** Licensed Professional Surveyors
- 6** Licensed Professional Architects



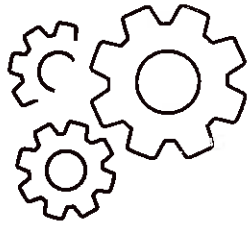
# 35

**YEARS**  
of delivering successful projects

### Main Point of Contact

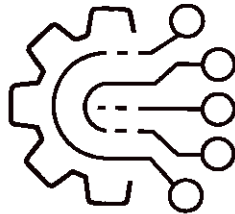
Daniel Ferrell, PE  
Project Manager  
dferrell@thethrasher.com  
Cell: 304-288-7755  
Office: 304-326-6135





## SERVICES

- > Engineering
- > Environmental
- > Survey
- > Materials Testing and Inspection
- > Construction Management
- > Architecture



## CORE MARKETS

- > Public/Private Utilities
- > Land Development
- > Highways and Roads
- > Industrial
- > Commercial
- > Oil and Gas
- > Education (K-12, Higher Ed)





## CIVIL ENGINEERING

### **Water Treatment & Distribution**

Thrasher brings experience, practical knowledge and advanced technology to clients ranging from regional to small communities' water systems. Our engineers have designed and managed the construction of hundreds of miles of water distribution lines, millions of gallons of storage, and numerous system rehabilitations that successfully reduced water loss and increased reliability.

### **Wastewater Collection & Treatment**

Wastewater collection and treatment systems are vital to the health of rural communities and municipalities. Cost-versus-benefit Environmental and technological issues are all involved.

### **Stormwater Systems**

Thrasher is prepared to take on challenges to make your stormwater management project a success. In the not so distant past, storm water management was not a significant issue. It was "out of sight, out of mind." That is no longer the case. Ever-increasing regulations, the creation of public storm water utilities, and the focus on downstream effects of development are pushing stormwater management issues to the forefront.

### **Site Development**

Engineering for site development is far from a "one size fits all" approach. Every project is unique and requires a blend of technical expertise combined with quality planning principles, efficient design, market realities, and flexibility to seize opportunities. With our diverse staff, Thrasher has the right blend of talent to make your project a success.

### **Roadways & Bridges**

From industries to local families, the nation depends on the strength of highways, bridges, and even pedestrian walkways. No matter what the mode of land transportation, Thrasher gets our clients where they want to be.



## WATER TREATMENT AND DISTRIBUTION

Meeting increasingly stringent water quality standards demands experienced and dedicated water system specialists. Since our very first water project more than 30 years ago, there has always been a potable water project underway at Thrasher. These projects provide safe drinking water to towns, cities, and entire counties. The team at Thrasher is highly skilled and practiced in both conventional ground and surface treatment systems involving rapid mix, flocculation, sedimentation filtration, membrane, and reverse osmosis processes.

Whether it is designing more efficient processes, integrating alternative energy sources, reducing infiltration, or restoring function to aged piping systems, our clients can count on Thrasher to find practical, low cost, environmentally friendly solutions to their supply needs.

### Water Services:

- > Distribution System Design
- > Booster Stations and Hydraulic Modeling
- > Water Loss Evaluation and Analysis Studies
- > Feasibility Studies/Facility Planning
- > Water Treatment Plant Design
- > SCADA and Telemetry Systems
- > Existing System Evaluation
- > Storage Facility Design
- > Pump Station Design
- > Construction Monitoring
- > Geographical Information Systems (GIS)





## CONSTRUCTION ADMINISTRATION

Effective management of our projects ensures that both clients and contractors work in an efficient and safe manner. From pre-construction activities - such as bid conferences and surveys - to inspections, job progress reviews, and on through final completion, our goal is work that proceeds in accordance with plans and specifications.

At Thrasher, we inspect and manage a wide variety of projects designed by our firm in addition to projects for contractors and other designers. We have certified project representatives responsible for overseeing every element of design integrity. Our methods have earned the respect of not only our clients, but contractors and project owners alike.

### Construction Inspection Services:

- > Construction Materials
- > Pipelines
- > Structural Steel & Concrete
- > Paving
- > Drainage
- > Embankments
- > Work Zone Safety & Traffic Control
- > Erosion and Soil Control

### Quality Control and Assurance Methods:

- > Regularly Scheduled Planning and Progress Meetings
- > Engineering During Construction
- > Daily Logs and Progress Sheets
- > Cut Sheets
- > Quantity Tracking



A critical step in meeting your goals is first ensuring we understand them. Thrasher’s team has thoroughly reviewed the Expression of Interest request and is confident in our ability to deliver the highest-quality solutions to your problems. We are capable of meeting each goal/objective you have outlined and feel strongly that you will be satisfied with the outcomes you receive.

We understand your goals for the water line replacement projects at Babcock, Chief Logan, North Bend, and Watoga State Parks and will handle them in the following manner:

### **GOAL/OBJECTIVE 1**

The Thrasher Group will review existing plans and conditions at each park, allowing us to fully evaluate your water distribution system. This evaluation will also include communication and planning to ensure minimal disruption to the parks’ operation.

### **GOAL/OBJECTIVE 2**

We are confident that Thrasher can provide all of the necessary services to replace the water lines at these parks, and will keep all designs consistent with the Division of Natural Resource’s needs and objectives while adhering to all applicable codes and laws, as well as the project budget.

### **GOAL/OBJECTIVE 3**

Construction Administration is always part of the Thrasher package. This is a piece that we feel is important to offer for every project, and we consistently bid more projects than any other firm in the state. Thrasher has the competent professionals your team needs to ensure your project is constructed correctly and functions as designed.

Communication throughout any project is a primary key to success. To that end, Thrasher will begin communication with the WVDNR immediately upon notification of award and will maintain consistent lines of communication for the duration of the project. This will ensure all parties involved - owner, contractor, and engineer - will always be apprised of the project happenings.

The two main components of the project approach will be design and construction. Each will have its own plan for communication.

## Communication During Design

Prior to the initiation of design services, Thrasher's Project Manager, Dan Ferrell, will discuss preferred methods of communication with the DNR's point of contact. Updates during the design phase can occur in numerous ways:

- Weekly status updates via email
- Weekly conference calls
- Monthly progress meetings.

No matter the methods preferred, our project teams are well versed in keeping our clients abreast of project status. We can customize your project's communication plans to best fit your teams' wants and needs.

## Communication During Construction

Before construction begins, Dan will again meet with the DNR team to determine preferred communication tools for this phase of the project. Open, consistent communication will be paramount to keep the project on-time and within budget.

Additionally, Thrasher will conduct monthly progress meetings with the contractor, the WVDNR, and key project stakeholders throughout the duration of the project. Meeting minutes will be distributed to all attendees and any other agents identified by the WVDNR. Action items will be documented within the meeting minutes.

Throughout construction, Thrasher will have people on-site for project representation as well as material testing. Anytime a Thrasher employee is on site during construction, a field report will be prepared. Field reports will be reviewed by the engineering team and distributed to the DNR's construction representative on a weekly basis.

Thrasher's goal is always to complete projects on-time and within budget for our clients, and we have a long history of achieving that goal. Throughout this Expression of Interest, you will see projects that illustrate these qualities and represent successful outcomes.

While achieving this isn't always an easy task, our tried-and-true project approach is what consistently gets us to that end result.

Thrasher will establish a design kick-off meeting with the WVDNR and key members of our project team to review the project and clearly define the Scope of Services. Following contract approval, our team will take the following steps to ensure completion:

### **Step 1 - Site Visit**

Your assembled team of engineers and technicians will conduct a site visit. This group will evaluate the project conditions and identify and document potential problem areas. We will coordinate with your team and any identified key stakeholders to take all the facts into consideration during this process.

### **Step 2 - Conceptual Design and Report**

Thrasher will prepare a conceptual design for the needed services at Babcock, Chief Logan, North Bend, and Watoga State Parks. Where applicable, we will also provide design alternatives for consideration by the DNR. We will then prepare a written report of the conceptual designs and outline any issues.

### **Step 3 - Construction Documents**

Our team will provide design solutions and construction documents to the appropriate personnel for the project. These plans will be carried forward to final design based upon the conceptual design report. Thrasher proposes to prepare two submissions - preliminary design and final design. The preliminary design submission will be used

to review the proposed project with the DNR. After review and comment, we will complete the final design documents based upon comments received and conclusions reached at the preliminary design review. Our field evaluations and design approach will specifically address these issues in the construction documents.

### **Step 4 - Cost Estimates**

Our project team will provide itemized cost estimates at the following stages: conceptual design, preliminary design, and final design.

### **Step 5 - Bid Process**

We will assist the DNR in preparation of the bid documents and will attend pre-bid meetings and issuance of addenda.

### **Step 6 - Construction Administration**

The project team will review project submittals, attend project meetings, and provide inspection of the construction being completed. The project team will also provide final punch list inspection at project completion.

Thrasher will also develop a program to keep the DNR abreast of potential construction issues. Our project team will prepare design repairs with the adjacent property owners in mind. We plan to address any issues that may arise through clear and concise construction notes, details, and specifications to ensure the safety of the workers and environment.

### **Step 7 - Project Close Out**

Upon completion of the project, the Thrasher team will provide final as-built drawings in both CAD and PDF format to the DNR and any appropriate personnel as needed.

## **Scheduling:**

Thrasher realizes the importance of establishing and maintaining project schedules. Time means money and making sure we help you spend your money wisely is our number one goal. Because of this, our team puts an emphasis on ensuring project timetables are met, and communication is upheld throughout the process.

To accomplish these goals, Thrasher utilizes specialized scheduling software to track every stage of a project - from design and bidding through construction completion. We also require contractors working on our projects to regularly update their project schedules and give a detailed progress report at each job meeting, again focusing on the communication component of scheduling. This helps to ensure all parties are informed and aware of potential delays. Keeping our owners up to speed with progress is our number one goal and ensures occupancy and owner supplied equipment are scheduled accordingly.

## **Budgeting:**

Construction estimating and budgeting is the most important part of what Thrasher can provide you. Without accurate budgets, there is no tool to guide the design process, and issues will be inevitable. By including cost estimating as a part of the project scope from day one, we are able to avoid the issues before they arise and keep your project within a reasonable cost.

And our estimates go beyond the typical system - rather than simply providing cost per foot of lump sum price, Thrasher will provide contractor-grade estimates that look at every part of the project. We do detailed take-offs of materials and look at every man hour needed to complete a project and factor this in accordingly. Then, we use our thorough understanding of the local market and material costs to accurately design within your budget.





## Hardy County Public Service District

Client Contact:

Mr. Logan Moyers, General Manager

2094 US 220 South | Moorefield, WV 26836

304-530-3048

**Location:** Hardy County, WV

**Project Type:** Water Line Replacement

Thrasher has served as the engineer of record for Hardy County Public Service District for over ten years in a multi-phase project to provide potable water throughout rural sections of the county.

### Source Water Study, Raw Water Intake, and Water Treatment Plant

The Baker / Mathias Water Distribution System, now provides water to the Central region of Hardy County to approximately to 518 customers at a total project cost of \$11,150,000 which included a new water treatment plant, adequately sized distribution lines, and associated soft costs.

Thrasher developed a preliminary engineering study providing both surface water and ground water source alternatives. The selected alternative was to utilize the Lost River Site 10 dam, constructed by the Natural Resources Conservation District. This dam is a multi-purpose dam intended for water supply and flood control.

### Five-Phase Water Line Extension Project

In evaluating potential areas of water service for the Hardy County PSD, Thrasher and the PSD assessed every county route and mapped rural roads in the central region of the county for total distance, total number of customers, and customer density. Limits of the study



area were defined by County lines, WV State line, and South Branch Mountain. Some areas of the PSD receive water from the Town of Moorefield while others are now served by the Hardy County PSD water treatment plant.

### Treatment Pilot Study and WTP Design & Construction

Thrasher conducted a six-week pilot study to treat surface water to determine the effectiveness of chemical addition flocculation and sedimentation followed by membrane ultra-filtration for removal of iron manganese and turbidity from the surface water



## City of Cameron Water Line Replacement Project

Client Contact:

Betty Scott, Mayor

44 Main Street | Cameron, WV 26033

304-686-2366

**Location:** Marshall County, WV

**Project Type:** Water Line Replacement

The City of Cameron was experiencing a 41% water loss due to the deterioration of old cast iron water lines throughout the city. Thrasher was hired to provide a preliminary engineering report, followed by engineering design and construction services to reduce the loss. Thrasher prepared the report and concluded the city would be best served by a two phase replacement project.

### Phase I

Phase I consisted of the replacement of approximately 5.5 miles of cast iron water lines with PVC pipe throughout the City of Cameron. In addition to the replacement of the City's water lines, a new 50gpm booster pump station was installed to on North Avenue to replace the existing one. Approximately 200 meter settings were replaced as well.

Following the completion of Phase I, the water loss was reduced from 41% to 32%.

### Phase II

The goal of Phase II was to reduce the 32% water loss to as low as possible. Additionally, the project was designed to provide adequate fire protection to the residents in town.



Following construction of the project water loss was reduced to 23%.

Additionally, the project was designed to provide adequate fire protection to the residents in town. Following construction of the project, both goals were met.

Phase II also involved the replacement of an additional 3.4 miles of line, consisting of 8", 6", 4" and 2". For improvement of fire protection, 18 new fire hydrants were installed, all new hydrants were modeled and flow tested using the Kentucky Pipe 2010 Hydraulic Modeling Program.

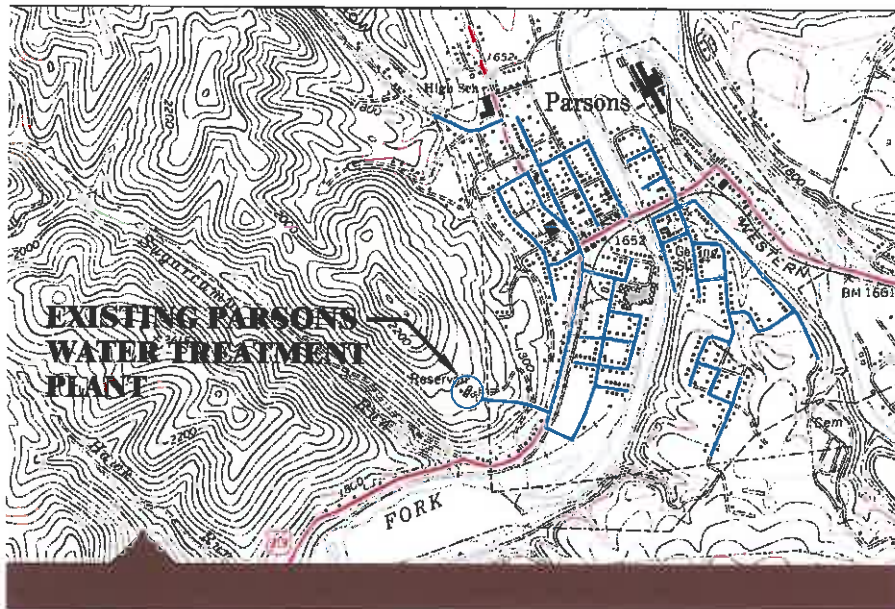
## City of Parsons Water Line Replacement Projects

Client Contact:

Mr. Jason Myers, City Administrator  
341 2nd Street | Parsons, WV 26287  
304-478-2311

**Location:** Tucker County, WV

**Project Type:** Water Line Replacement



The Thrasher Group began working with the City of Parsons in 1996 with the design of a new 550 gallon per minute raw water pump station, the construction of a new pre-sedimentation basin, and a new raw water line. The success of this project has led to a continued relationship with the City, who has needed several upgrades as the majority of its water distribution system was installed in the late 1800s.

That system was seeing water loss in excess of 40%, far exceeding the mandated 15% water loss threshold deemed acceptable by the West Virginia Public Service Commission. The City of Parsons hired Thrasher to design a Phase I replacement portion of the Parsons Distribution System, which resulted in water loss reduction to approximately 25%. Thrasher was then hired to design and inspect a Phase II water project involving water extensions to the outlying areas of Moore, Porterwood, and Fork Mountain, which was completed under budget.

In repairing some of the critically decrepit areas of the existing potable water distribution system, Thrasher replaced approximately 54,100 linear feet of existing water lines, 273 meter services, 18 fire hydrants, various lengths of polyethylene service tubing, miscellaneous valves, surface repairs, and miscellaneous appurtenances to complete the project.

## City of Salem Water Line Replacement

**Client Contact:**

Mr. Ronnie Davis, City Manager  
229 West Main Street | Salem, WV 26426  
304-838-3635

**Location:** Harrison County, WV

**Project Type:** Water Line Replacement



The City of Salem, located in Harrison County, West Virginia, had owned and operated a potable water distribution system for many years, distributing potable water to the residential and commercial customers in the City.

Much of the distribution system had been in place for many years and had become deteriorated, resulting in an unacceptable leakage rate in the system. A sanitary survey in 2006 showed the water accountability was only 64.5% replaced and restored portions of the water distribution system throughout the City.

The project consisted of eliminating some older 4" cast iron water lines, which are suspect to leaks. A new 6" water line main was installed within Water Street, and new meters and service lines were installed for all residents served from the existing 4" water line in Water Street, therefore abandoning the 4" water line. The work within Valley Street consists of new meters and service lines transferred from the existing 4" cast iron water line to the newer 6" ACP water line already in service, in-turn abandoning the 4" water line. The work along Pennsylvania Ave. consisted of abandoning an older 4" water line by installing new service meters and lines off of the newer 8" and 10" lines in the area.

This project involved the installation of approximately 2,800 LF various size water lines, including 90 new meter settings to existing customers, various lengths of 3/4" and 1" service tubing, miscellaneous valves, fire hydrants, and trench repair items.

## Greater Harrison County PSD

Client Contact:

Mr. Bill Hoover, General Manager

PO Box 190 | West Milford, WV 26451

304-745-3134

**Location:** Harrison County, WV

**Project Type:** Water Extensions and Storage Tank Installation

Greater Harrison Public Service District (GHPSD) provides both potable water services and sanitary sewer services to the majority of areas in Harrison County not served by local municipalities in the area. Thrasher provides engineering and other services to the PSD for both utilities.

Within the past ten years, Thrasher and the GHPSD have worked together on three potable water extension projects including the installation of water storage tanks. Thrasher's services included preliminary engineering, funding application assistance, design, permitting and field services including survey and construction monitoring. Summary of those projects include:

### Water Line Extension: Brushy Fork

To serve an additional 125 customers, approximately 14 miles of water service line extensions along Brushy Fork, County Route 26, 26/2, Coplin Run, Moss Run, and Beards Run. This project also replaced an existing pump station and storage tank with a new 100 gpm pump station and 107,000 gallon storage tank.

### Water Line Extension: Johnstown

Approximately 5 miles of water service line to serve 50 new customers including two booster stations and a 47,000 gallon water storage tank.



### Water Line Extension: Normandy Estates

In able to serve a small subdivision with potable water, approximately 1 1/2 miles of 6" line was installed, serving 7 new customers in the area.

### WATER SYSTEM UPGRADES: OVERALL WATER PROJECT

Thrasher designed a project to reduce maintenance costs of the PSD by constructing more storage, replacing leaking lines, purchasing radio read meters and adding a second connection to a water provider for more reliable and constant water service to its customers.

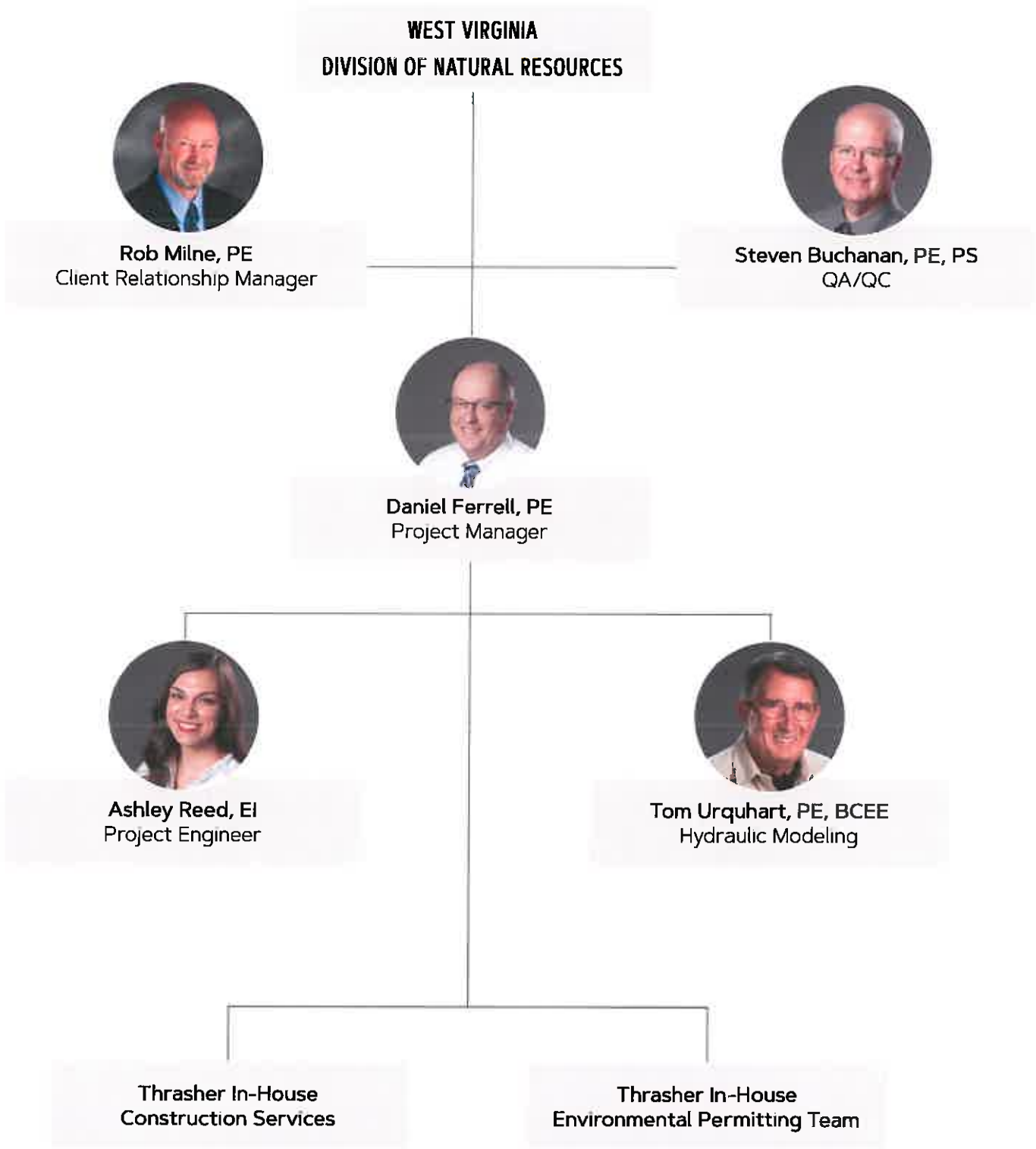
### New Water Storage Tank

Thrasher designed a tank mixing system for the Route 25 water loss reduction project during the design of the new 750,000 gallon tank.



CLIENT	ESTIMATE	LOW BID	# of BIDDERS
Town of Bath	<b>\$2,198,725</b> (3 contracts combined)	<b>\$1,963,048</b> (3 contracts combined)	<b>13</b> (3 contracts combined)
Lewis County EDA	<b>\$2,795,000</b> (2 contracts combined)	<b>\$2,447,385</b> (2 contracts combined)	<b>16</b> (2 contracts combined)
Greater Harrison PSD	<b>\$2,623,110</b>	<b>\$2,219,115</b>	<b>9</b>
Hamrick PSD	<b>\$5,239,000</b>	<b>\$4,698,733</b>	<b>18</b>
Fountain PSD	<b>\$9,140,300</b>	<b>\$8,186,810</b>	<b>15</b>
City of Ripley	<b>\$10,762,000</b>	<b>\$9,948,288</b>	<b>15</b>
Town of Rowlesburg	<b>\$3,300,000</b> (2 contracts combined)	<b>\$2,706,749</b> (2 contracts combined)	<b>8</b> (2 contracts combined)
River Road PSD	<b>\$1,860,470</b>	<b>\$1,497,060</b>	<b>14</b>
Hundred-Littleton PSD	<b>\$1,015,000</b>	<b>\$894,040</b>	<b>8</b>
Paw Paw Rt. 19 PSD	<b>\$300,000</b>	<b>\$315,620</b>	<b>8</b>
City of Oak Hill	<b>\$18,135,700</b>	<b>\$16,245,767</b>	<b>25</b>
River Road PSD	<b>\$1,860,470</b>	<b>\$1,497,060</b>	<b>14</b>
Gilmer County PSD	<b>\$595,000</b>	<b>\$443,151</b>	<b>12</b>

Our team of highly skilled engineers spend the time upfront to ensure accurate estimates for each and every project we undertake. Our engineers formulate comprehensive project estimates, reach out to numerous contractors, and work with the project owner to secure competitive bids and quickly move projects from bidding to award.





QA/QC



## Education

Bachelor of Science,  
Civil Engineering  
West Virginia University

## Registrations

Professional Engineer:

- > West Virginia
- > Maryland
- > Ohio
- > Pennsylvania

Professional Surveyor:

- > West Virginia

Steve Buchanan, PE, PS has over three decades of professional experience working on various municipal projects all throughout the Mid-Atlantic region. Steve holds licensure in both engineering and surveying, which has given him the ability to develop projects with a comprehensive understanding of the technical components, as well as land restrictions and site considerations

Over the years, Steve has primarily been involved with public utility projects, and has worked on a wide array of jobs including stormwater management, site planning, hydrologic and hydraulic analysis, wastewater collection system design, water distribution systems, and highway engineering. Steve is heavily involved in all facets of his projects; he manages project design, funding applications, mapping development, and construction coordination for numerous municipalities.

## Experience

### Town of Middlebourne Water Line Replacement Project

Role: Project Manager

- > Tyler County, WV

### Clarksburg Water Board Farland Avenue Water Line Replacement

Role: Project Engineer

- > Harrison County, WV

### Town of Paw Paw Water Line Rehabilitation

Role: Project Manager

- > Morgan County, WV

### City of Bridgeport Water System Upgrades

Role: Project Engineer

- > Harrison County, WV

### Fountain Public Service District Phase II Contract #2 Burlington System Water Line Extension

Role: Project Manager

- > Mineral County, WV

## Search: Details

**Name:** STEVEN V. BUCHANAN

**WV Professional Engineer:** PE License Number: [REDACTED]

**PE License Status:** Active

**PE Issue Date:** 09/12/1990

**PE Expiration Date:** 12/31/2020

**Continuing Education Claim:** Qualifying Hours from Last Renewal or Reinstatement: 34.00

**Carryover Hours for Next Renewal:** 4.00

**Last Renewal or Reinstatement Date\*:** 12/17/2018

**WV Engineer Intern:** Ei Certification Number: [REDACTED]

**Ei Issue Date:** 07/27/1984

**Primary Address of Record:** [REDACTED]

**Primary Employer of Record:** THE THRASHER GROUP, INC.  
600 WHITE OAKS BOULEVARD  
PO BOX 940  
BRIDGEPORT, WV 26330

\* This date reflects the most recent license renewal (or reinstatement) date for this licensee. Continuing education hours earned prior to this date may not be used for future renewals.

This data was retrieved on 12/17/2018.

# ROB MILNE, PE

Client Relationship Manager



## Education

Master of Science,  
Civil Engineering  
West Virginia University

Bachelor of Science,  
Civil Engineering  
West Virginia University

## Registrations

Professional Engineer:

- > West Virginia
- > Pennsylvania
- > Virginia
- > Ohio

## Certifications

- > Leadership Monongalia County, WV
- > Foundations of Leadership/ National Leadership Institute
- > USACE-Access Control Point Design Training Course
- > ODOT Non-complex Roadway Design prequalification
- > ODOT Complex Roadway Design prequalification
- > ODOT Bridge Design Level 1.1/1.2 prequalification

Robert Milne, PE has over 25 years of experience working with both public and private clientele throughout the Mid-Atlantic region to develop millions of dollars' worth of commercial, industrial, residential, and mixed-use sites. Rob's in-depth understanding of site layout, design, permitting, and funding have enabled him to complete several complex projects that have boosted economic development and delivered safe, sustainable building sites.

Additionally, Rob has worked closely throughout his career with the WV Department of Natural Resources, and has developed a thorough understanding of the Department's goals and processes. His knowledge will greatly enhance our team's communication and project reporting to the WV DNR.

## Experience

### WV Department of Natural Resources Boat Ramp Design at Palatine Park

Role: Project Manager  
> Marion County, WV

### WV Department of Natural Resources Elk River Boating Access

Role: Project Manager  
> Kanawha County, WV

### WV Department of Natural Resources Broadband Services

Role: Project Manager  
> Multiple WV State Parks

### Boy Scouts of America Welcome Center Site Planning and Master Conceptual Design

Role: Site Engineer  
> Fayette County, WV

### City of Ripley Riverbank Stabilization Project

Role: Project Engineer  
> Jackson County, WV

### City of Clarksburg Stormwater Management Program

Role:  
> Harrison County, WV

### City of Bridgeport Stormwater Structures Phases I and II

Role: QA/QC  
> Harrison County, WV

### Harpers Ferry National Park Historic Train Station

Role: Project Manager  
> Jefferson County, WV

**Search: Details**

**Name:** ROBERT R. MILNE

**WV Professional Engineer:** PE License Number: [REDACTED]

PE License Status: Active

PE Issue Date: 07/28/1999

PE Expiration Date: 12/31/2020

**Continuing Education Claim:** Qualifying Hours from Last Renewal or Reinstatement: 47.50

Carryover Hours for Next Renewal: 15.00

Last Renewal or Reinstatement Date\*: 12/31/2018

**WV Engineer Intern:** EI Certification Number: [REDACTED]

EI Issue Date: 07/01/1998

**Primary Address of Record:** [REDACTED]

**Primary Employer of Record:** THE THRASHER GROUP, INC.  
600 WHITE OAKS BOULEVARD  
PO BOX 940  
BRIDGEPORT, WV 26330

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This data was retrieved on 12/31/2018.

# DANIEL FERRELL, PE

Project Manager



## Education

Master of Science,  
Civil Engineering  
Old Dominion University

Bachelor of Science,  
Civil Engineering  
West Virginia University

## Registrations

Professional Engineer:

- > West Virginia
- > Pennsylvania
- > Virginia

## Affiliations

- > West Virginia Municipal Water Quality Association
- > West Virginia Rural Water Association

Daniel Ferrell, PE is a tenured Project Manager with nearly 30 years of experience in project design and management within the public utility sector. Daniel has built an impressive portfolio of sanitary sewer projects throughout his career which range from small system extensions and upgrades to large-scale projects, such as the \$23 million system he designed for the Malden Public Service District in Kanawha County, WV. Daniel's ability to understand his client's goals stems in part from his time serving as the Director of Public Works and City Engineer for the City of Bridgeport, WV. During this time, he was responsible for water, sanitary sewer, and stormwater infrastructure for the growing city. Daniel has taken that time spent as the client and translated it over to become a highly skilled engineering consultant. Daniel's designs have even garnered national recognition from regulatory agencies such as the United States EPA for his innovative sewer system solution to "third world like conditions" within the community of Crown, WV.

## Experience

### City of Richwood Water System Rehabilitation

Role: Project Manager  
> Nicholas County, WV

### Town of Capon Bridge Water System Improvements

Role: Principal-in-Charge  
> Hampshire County, WV

### Paw Paw Route 19 Public Service District Water System Improvements

Role: Principal-in-Charge  
> Monongalia County, WV

### City of Bridgeport Water System Upgrades

Role: Project Manager  
> Harrison County, WV

### River Road Public Service District Water System Improvements

Role: Principal-in-Charge  
> Monongalia County, WV

# Your ACTIVE PE renewal fee has been received...

Your ACTIVE PE renewal fee has been received. Your pocket card indicating you are entitled to practice engineering in West Virginia until the noted expiration date may be detached and used unless invalidated as a result of Board audit of your renewal form or formal disciplinary action.

**IMPORTANT REMINDERS:**

- 1. Please include your WV ACTIVE PE license number on any correspondence to this office.
- 2. To use this license as a pocket card, please cut along the dotted line and laminate if desired.
- 3. You are required to immediately notify the Board, in writing, of the following: loss or theft of license or seal, any name change, any address change, or any employment change.


**West Virginia State Board of Registration for Professional Engineers**

300 Capitol Street, Suite 910  
Charleston, West Virginia 25301  
304-558-3554 Phone  
800-324-6170 Toll Free  
[www.wvpebd.org](http://www.wvpebd.org)

**THIS IS ONE FORM OF YOUR RENEWAL RECEIPT**

**PLEASE SAVE THIS FOR YOUR RECORDS**

Date of Renewal: December 3, 2018  
Amount Paid: \$70.00



**West Virginia State Board of Registration  
for Professional Engineers**

**DANIEL E. FERRELL**  
WV I [REDACTED]

This is to certify that the above named PROFESSIONAL ENGINEER has met the requirements of the law, is duly registered and is entitled to practice engineering in the State of West Virginia.

**EXPIRES December 31, 2020**

DANIEL E. FERRELL  
[REDACTED]



Project Engineer



Ashley Reed, EI is a skilled civil engineer with a specialty in public utilities. Ashley has developed skills in hydraulic modeling and utilizes her experience and education to provide assistance for the preparation of preliminary engineering reports, cost estimates and permit and funding applications. Additionally, she assists in permitting preparation of construction documents and mapping. Ms. Reed's attention to detail and understanding of public utility functions makes her an outstanding Project Engineer.

## Education

Bachelor of Science,  
Civil Engineering  
University of Akron

## Registrations

Registered Engineer Intern  
> West Virginia

## Affiliations

> West Virginia Section of  
American Water Works  
Association Assistant  
Secretary Treasurer on the  
Board of Directors

Ms. Reed has represented the West Virginia Section of American Water Works Association (AWWA) at several national events, including AWWA's 2017 Annual Conference and Exposition in Philadelphia, and the AWWA Water Matters! Fly In in Washington DC, where she met with WV congressmen and senators advocating investments in our infrastructure. Through her experience in AWWA, Ms. Reed has gained knowledge and resources to promote water loss tracking with the free water audit software provided by AWWA. Her familiarity with this program allows her to assist clients with water loss tracking from start to finish.

## Experience

### City of Bridgeport Kovach Tank Water System

#### Evaluation

Role: Project Engineer  
> Harrison County, WV

### Town of Rowlesburg Water Line Extension, Booster Station

Role: Project Engineer  
> Preston County, WV

### Hamrick Public Service District Water Project

Role: Staff Engineer  
> Tucker County, WV

### Town of Harman Water Line Extension Project Permitting

Role: Staff Engineer  
> Tucker County, WV

### Hardy County Public Service District Water Line Extension Hydraulic Modeling

Role: Staff Engineer  
> Hardy County, WV

## Hydraulic Modeling



### Education

Master of Science,  
Civil Engineering  
West Virginia University

Bachelor of Science,  
Civil Engineering  
West Virginia University

### Registrations

Professional Engineer:

- > West Virginia
- > Ohio
- > Kentucky
- > Maryland

### Certifications

- > Board Certified Environmental Engineer (BCEE)
- > Certified Master Modeler by Haestad Methods for Water Systems

Following 33 years as chief engineer and general manager for the Morgantown Utility Board, Tom Urquhart joined Thrasher to focus his engineering expertise in quality control and hydraulics modeling for both water and wastewater systems utilizing KY Pipe Modeling. Tom, a Board Certified Environmental Engineer (BCEE), has an expansive background in civil engineering for public utility entities where he has been responsible for the design and construction of water storage tanks, new water and sanitary sewer lines, various line replacements, pump stations, and new water and wastewater treatment plants. He also has vast experience in the management and operations of public utility systems. As a result of his excellent management and operations work, Tom was awarded the George Fuller Award from the American Water Works Association for his time spent at the Morgantown Utility Board. This award was earned as recognition for his superior budgeting skills and rate structure development standards.

### Experience

#### **City of Weirton Complete Water System Hydraulic Modeling**

Role: Modeling Engineer  
> Hancock County, WV

#### **Timberline Four Seasons Resort System Evaluation and Modeling**

Role: Modeling Engineer  
> Tucker County, WV

#### **Greater Harrison Public Service District Hydraulic Modeling for Improvements and Extensions**

Role: Modeling Engineer  
> Harrison County, WV

#### **Lewis County Public Service District Water System Improvements Hydraulic Modeling**

Role: Modeling Engineer  
> Lewis County, WV

#### **Southwestern Water Public Service District Hydraulic Modeling for Water System Improvements**

Role: Modeling Engineer  
> Taylor County, WV

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**THIS IS ONE FORM OF YOUR RENEWAL RECEIPT  
PLEASE SAVE THIS FOR YOUR RECORDS**

Date of Renewal: December 5, 2018  
Amount Paid: \$70.00



**West Virginia State Board of Registration for Professional Engineers**

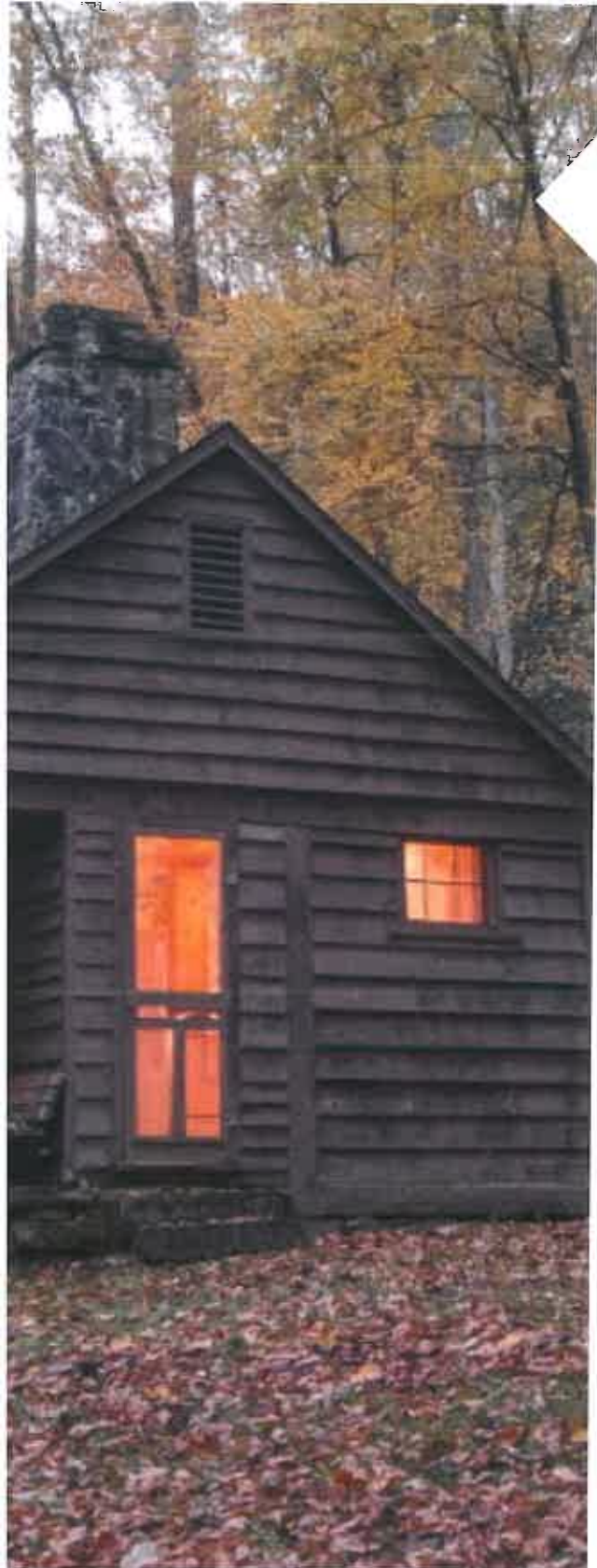
**MICHAEL ANTHONY TYLER**  
WV [REDACTED]

This is to certify that the above named PROFESSIONAL ENGINEER has met the requirements of the law, is duly registered and is entitled to practice engineering in the State of West Virginia.

**EXPIRES December 31, 2020**

**MICHAEL ANTHONY TYLER**

5: [REDACTED]  
C [REDACTED]



**Greater Harrison County Public Service District**

Mr. Bill Hoover, General Manager  
PO Box 190  
West Milford, WV 26451  
304-745-3134

**City of Parsons**

Jason Myers, City Manager  
341 2nd Street  
Parsons, WV 26287  
304-478-2311

**City of Mannington**

Michelle Fluharty, City Clerk  
206 Main Street  
Mannington, WV 26582  
304-986-2700