

THRASHER

ARCHITECTURE | ENGINEERING | FIELD SERVICES

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WV PURCHASING
DIVISION



WV DNR - WEST VIRGINIA STATE PARKS

Cass Wastewater Repairs
DNR1900000002

Submitted by:
The Thrasher Group, Inc.
February 22, 2019



February 22, 2019

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

*RE: Cass Scenic Railroad State Park Town Wastewater Collection System Renovations and Treatment Improvements - AEOI DNR19*2*

Dear Mr. Nisbet and members of the selection committee:

Cass Scenic Railroad State Park provides a rich historical experience to those exploring West Virginia. It serves visitors with a wealth of knowledge and unforgettable views. But to continue providing those experiences, the Cass Scenic Railroad State Park needs significant improvements to its wastewater collection and treatment system. The Thrasher Group has the knowledge, experience, and technology to make those improvements happen.

Thrasher can provide extensive inflow and infiltration (I&I) services to Cass. We have a full in-house team with decades of experience and the newest technology to handle these issues. The I&I team can give you a full picture of exactly where your system's problems are occurring and provide efficient, effective solutions to those problems. Narrowing down and correcting I&I issues is the first step towards addressing your overall collection and treatment system needs.

As a firm strongly rooted in West Virginia, we appreciate the role Cass Scenic Railroad State Park plays in preserving the history of our state and we look forward to the opportunity to partner with you in that effort. The materials enclosed will further show you why Thrasher is the right team for the job and exactly how we can add value to Cass's wastewater system. We are looking forward to providing another service to the WVDNR and further discussing your needs.

Sincerely,
THE THRASHER GROUP, INC.



Daniel Ferrell, PE
Project Manager

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)

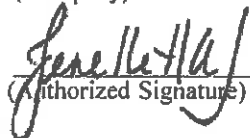
jarmstrong@thetrashergroup.com

(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)

**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 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 _____

Gene H. H. H.

Authorized Signature _____

February 14, 2019

Date _____

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

Revised 06/08/2018

STATE OF WEST VIRGINIA
Purchasing Division
PURCHASING AFFIDAVIT

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

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

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

DEFINITIONS:

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

"Employer default" means having an outstanding balance or liability to the old fund or to the uninsured employers' fund or being in policy default, as defined in W. Va. Code § 23-20-2, 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: *Jane Hella* Date: 2/14/19

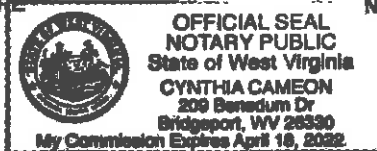
State of West Virginia

County of Harrison to-wit:

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

My Commission expires April 18, 2022.

AFFIX SEAL HERE



NOTARY PUBLIC

Cynthia Cameon

Purchasing Affidavit (Revised 01/10/2018)

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

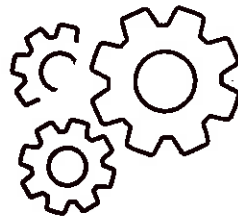
YEARS

of delivering successful projects

Main Point of Contact

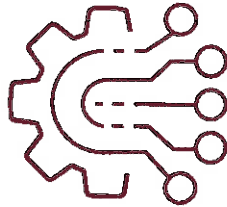
Daniel Ferrell, PE
Project Manager
dferrell@thethrashergroup.com
Cell: 304-288-7755
Office: 304-326-6135





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.



WASTEWATER COLLECTION AND TREATMENT

Thrasher has planned, designed, and supervised the construction of municipal, industrial, and individual wastewater collection and treatment projects throughout the entire Mid-Atlantic region. When designing a wastewater system, many factors - including the environment, technology, and cost-effectiveness - come into play. Wastewater system projects require both experience and a strong understanding of regulations and requirements.

Having successfully designed and completed wastewater system projects ranging from \$50,000 to \$50 million, the Thrasher team employs some of the most skilled and sought after professionals in the industry. Our approach allows us to develop unique solutions for our clients while providing a helping hand through difficult funding and regulatory hurdles.

Wastewater Services:

- > New Collection Systems and Extensions
- > Rehabilitation and Replacement of Existing Systems
- > Combined Sewer Overflow (CSO) Reduction
- > Long-Term Control Plans
- > Construction Monitoring
- > Wastewater Treatment Plant Design
- > Feasibility Studies
- > Facility Planning
- > Geographical Information Systems (GIS)
- > Inflow and Infiltration (I&I) Testing and Evaluation

INFLOW AND INFILTRATION



Camera Inspection



Smoke Testing



Pipe Profiling



Dye Testing

Thrasher has a full Inflow and Infiltration (I&I) team in-house. These employees are specially trained and fully knowledgeable on the I&I process and all that it entails.

The team uses a variety of methods to pinpoint exactly where an issue is within your sewer system. This can be done through camera inspection, smoke testing, pipe profiling, and dye testing, among other methods.

The I&I team includes:

- > Butch Brown, I&I Manager
- > Andrew Kelley, I&I Technician
- > Jared Smith, I&I Technician
- > Steve Six, I&I Technician
- > John Channel, I&I Technician
- > Brian Channel, I&I Technician
- > Scott Pacifico, I&I Technician
- > Brant Busdeker, I&I Technician

Thrasher's I&I team is headed by Butch Brown, who has more than 30 years of experience working on sewer projects in West Virginia.



ENVIRONMENTAL PERMITTING

The Environmental Division of the Thrasher Group provides permitting, consulting, and assessment services to a multitude of clients spanning the Mid-Atlantic region. With a combined 40 years of permitting experience, Thrasher's Environmental Scientists, Permitting Leads, and Project Managers are able to take even the most complex and time restrictive projects and provide clients with cost effective and timely solutions.

Federal Permitting

- > National Preservation Act - Section 106 Consultation
 - > *State Historic Preservation Office or Division of Culture and History*
- > Endangered Species Act - Section 7 and Section 9 Consultations
 - > *United States Fish and Wildlife Service*
- > Clean Water Act - Section 404 Permits
 - > *United States Army Corps of Engineers*

- > National Environmental Policy Act - Categorical Exclusions, Environmental Assessments, and Short Environmental Assessment Forms
 - > *United States Army Corps of Engineers; Federal Aviation Administration; Division of Transportation; and Federal Communications Commission*

State and Local Permitting

- > State Responsible Regulations of the Clean Water Act - Section 401 and 402 Permits
- > State Level Rare, Threatened, or Endangered Species Consultations
- > State Level Aquatic Resource Encroachment and Impact Permits
- > State Level Roadway Encroachment, Crossing, and Occupancy Permits
- > State Level Industrial Waste Discharge Permits
- > Local Level Floodplain or Building Permits



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 Cass Scenic Railroad State Park project and will handle them in the following manner:

GOAL/OBJECTIVE 1

The Thrasher Group will review existing plans and investigate the current conditions at Cass Scenic Railroad State Park, allowing us to fully evaluate your wastewater treatment and collection system. This evaluation will also include communication and planning to ensure minimal disruption to the facility’s operation.

GOAL/OBJECTIVE 2

We are confident that Thrasher can provide all the necessary services to design the wastewater facilities needed by Cass, 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 WVDNR'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 WVDNR 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 WVDNR'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 existing 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 Cass Scenic Railroad State Park. Where applicable, we will also provide design alternatives for consideration by the WVDNR. 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 WVDNR. 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 WVDNR in preparation of the bid documents and will attend pre-bid meetings and assist in 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 WVDNR 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 8 - 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 WVDNR 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 owners up to speed with progress is incredibly important to us 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 or 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.





Town of Capon Bridge - Sanitary Sewer Upgrades

Client Contact:

Mr. Steve Sirbaugh, Mayor
PO Box 183 | Capon Bridge, WV 26711
(304) 856-3625

Location: Hampshire County, WV

Project Type: Sanitary Sewer Upgrades

Thrasher is currently working with the Town of Capon Bridge for sanitary sewer upgrades. The goal of this project is to upgrade the town's wastewater treatment plant, reduce inflow and infiltration in the collection system, and provide sewer collection and treatment to the Capon Bridge Tech Park.

The addition of Capon Bridge Tech Park to the town's treatment plant is a particularly important aspect of this project. Decommissioning the Tech Park's package wastewater treatment plant provided nutrient credits to the Town's plant that enable the discharge to be increased from 50,000 gallons per day to 75,000 gallons per day. This also opened up the Town of Capon Bridge to access Federal EDA grant money for the project.

City of Ripley - Sewer System Evaluation and Improvements

Client Contact:

Ms Carolyn Rader, Mayor
203 South Church Street | Ripley, WV 25271
304-532-3657

Location: Jackson County, WV

Project Type: Sewer System Evaluation and Improvements

The City of Ripley in Jackson County, West Virginia operates two sanitary sewer collection and treatment systems that are under the influence of inflow and infiltration. The City's Ripley and Evans sewer systems were placed under Consent Order by WVDEP to eliminate unpermitted overflows. The City's existing sewer system was aged and unable to keep up with new development. The poor condition of the old sewer lines allowed for infiltration in the system.



Inflow and Infiltration Study:

Thrasher conducted an extensive evaluation of the City's existing sewer systems. The study consisted of flow monitoring, smoke and dye testing, evaluation of each located manhole, and evaluation of each pump station. Thrasher worked with the City to evaluate the collected data and determine what improvements would be necessary to eliminate overflows in the collection system.



Pushing for Feasible Permit Limits:

The City's existing NPDES permits were expiring and WVDEP informed the City that the permit limits were going to be more stringent due to low flow in the receiving waters. The proposed limits were unachievable with the existing treatment facilities. Thrasher worked with WVDEP to propose a plan to evaluate the stream flow and update the flow model to determine if more feasible limits could be given. A weir was designed with a still well and water level transducer that records stream flow data. This data is sent to WVDEP for evaluation. Based on recent discussions, WVDEP is considering real-time limits for the City's permit which is more feasible.

Plan for Reduction of Overflows:

Due to the aging and poor condition of the existing sewer system, the existing pump stations and a large portion of the gravity sewer lines need to be replaced. By replacing the sewer lines and increasing the pumping capacity of the pump stations, the excess flows can be conveyed to the City's two wastewater treatment plants which utilize stabilization ponds for treatment. This will reduce or eliminate overflows in the collection system.



Century Volga PSD

Client Contact:

Ms. Linda Rice, General Manager

946 Buckhannon Road Philippi, WV 26416 | 304-457-5735

Location: Upshur County, WV

Project Type: Sewer System Installation

Century Volga PSD currently serves approximately 1,021 customers but does not provide sanitary sewer service to any of the PSD's customers.

The community within the PSD's service area has approximately 57 residential customers, a church, community center and UMWA Hall. Sanitary flows are currently treated with septic tanks and drain field or home aeration units. This is an old coal mining town located on the side of the hill with small lots that result in failing septic systems due to the inadequate drain field and preferable soil types. Some residences have received a Notice of Violation (NOV's) after an inspection by the WVDEP Enforcement Division.

The \$2,870,000 project scope consists of installing a gravity sewer system throughout the community, installing a pump station and a 16,000 GPD Recirculation sand filter wastewater effluent treatment plant. The treatment plant will consist of a 44,000 sq. foot drip irrigation field. The installation of a sewer system in Century is necessary to address the health concerns involved with the current wastewater management in the area and to improve the environment.

This project is becoming a reality for the community of Century with funding from the WVDEP Clean Water State Revolving Fund (CWSRF), Green Infrastructure and a grant from the WV Infrastructure Joint Development Council.

Malden Public Service District

Client Contact:

Mr. Chet Williamson, General Manager

PO Box 35 | Tad, WV 25201

304-925-6997

Location: Kanawha County, WV

Project Type: Treatment Plant Upgrade

Malden Public Service District had a 38-year old wastewater treatment plant that was inefficient and out of compliance. It was facing significant problems with treatment efficiency, didn't have the capacity to properly serve its customers, and was not meeting raw sewage discharge permits set forth by the West Virginia Department of Environmental Protection.

Through a complex, multi-phase project, The Thrasher Group solved those problems and then some, creating a state-of-the-art new facility for Malden that is more cost effective and environmentally friendly for the surrounding area.

The \$20 million project saw construction of six new buildings at the Malden Public Service District. All renovations and construction were completed on the same site as the existing plant, which remained operational throughout all phases of the project.

The biggest enhancement to Malden was the installation of a new treatment process - a Vertical Loop Reactor and SmartBNR control system - to increase Malden's operational efficiency and treatment capacity. This technology is uncommon in West Virginia and its ease of maintenance and operation can open doors for the future of the utility sector in the state.



Not only is this beautiful, functional new facility a more efficient system than its predecessor, it has had a vastly important environmental impact as well. The biggest factor in this change is the elimination of overflow sewage discharging into a local creek. This improves the quality of not only this creek, but also the river it feeds into, greatly reducing the potential for serious health hazards to local residents and directly impacting the safety of recreational use of the river.

PROJECT NAME	LOCATION	TYPE
Anderson Equipment	Marion County, WV	Wastewater Treatment Plant Replacement
Calhoun-Gilmer Career Center	Calhoun County, WV	Wastewater Treatment Plant Upgrade
Canaan Valley Public Service District	Tucker County, WV	Public Sanitary Sewer System Development
City of Piedmont	Mineral County, WV	Pump Station Replacement
City of Romney	Hampshire County, WV	Wastewater Treatment Plant
Dominion Natrium Facility	Harrison County, WV	Wastewater System Upgrades
Greater Paw Paw Public Service District	Marion County, WV	Sewer System Improvements
Paden City	Tyler and Wetzel Counties, WV	Sewer System Upgrade

The Thrasher Group has built itself on public utility projects. Our business started in this sector in 1983 and we have continuously worked to improve local utility systems ever since.

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

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.



Rob Milne, PE
Client Relationship Manager

**WEST VIRGINIA
DIVISION OF NATURAL RESOURCES**



Jenelle Armstrong, PE, PMP
QA/QC



Daniel Ferrell, PE
Project Manager



Ashley Reed, EI
Project Engineer



Jeff Ekstrom, PE
Treatment Plant Process Engineer



Richard Hudkins
Operator and Constructibility

Inflow and Infiltration

Construction Services

Environmental Permitting

QA/QC



Education

Master of Engineering
Environmental Engineering
University of Texas at El Paso

Bachelor of Science
Civil Engineering
University of Texas at El Paso

Registrations

Professional Engineer:

- > West Virginia
- > Texas
- > New Mexico
- > Ohio
- > Pennsylvania

Project Management
Professional (PMP)

Affiliations

- > American Water Works Association, West Virginia Section—Trustee
- > American Society of Engineers—Past President
- > OSHA—HAZWOPER, 40 hour Training
- > Project Management, 40 hour Training
- > Material Selection, 80 hour Training
- > Basic Offshore Survival and Emergency Training, 20 Hours
- > AWWA - Board Member - West Virginia Section
- > WEA - Membership Chair - West Virginia Section
- > West Virginia Executive Magazine - 2018 Young Gun

Jenelle Armstrong, PE, PMP thrives on the challenges of water, stormwater, and wastewater projects. With more than 20 years of civil and environmental engineering experience, Jenelle consistently finds innovative solutions to clients' specific needs. Her drive to use the latest technology and methods have delivered programs and processes exceed regulations.

As the Utility Division Manager, Jenelle is fully committed to ensuring a positive experience for clients. She values collaboration, and encourages owners and operators of systems involvement in the design process. She keeps clients fully aware of project scheduling and delivery, and facilitates project meetings and regulatory agency discussions. Jenelle joined Thrasher in 2011, following 14 years of diverse experience in process, hydraulics and water modeling for both water and wastewater systems in the states of Texas and New Mexico. She is an experienced water system modeler using H2O Map Water, H2O Net, Water CAD and KY Pipe.

Experience

**Malden Public Service
District Wastewater
Treatment Plant Upgrade**

Role: Project Engineer

- > Kanawha County, WV

**Beckley Sanitary Board
Wastewater Treatment
Plant Upgrades & Capital
Improvement Plan**

Role: Client Services Manager

- > Raleigh County, WV

**Berkeley County Public
Sewer Service District and
Berkeley County Public
Service Water District
Procter and Gamble Utility
Extension Project**

Role: Principal-in-Charge

- > Berkeley County, WV

**Town of Accident
Wastewater Treatment
System Improvements**

Role: Principal-in-Charge

- > Garrett County, MD

**Town of Junior Wastewater
Treatment Plant Upgrades**

Role: Principal-in-Charge

- > Barbour County, WV

Search: Details

Name: JENELLE H. ARMSTRONG

WV Professional Engineer: PE License Number: [REDACTED]

PE License Status: Active

PE Issue Date: 08/07/2009

PE Expiration Date: 12/31/2020

Continuing Education Claim: Qualifying Hours from Last Renewal or Reinstatement: 55.00

Carryover Hours for Next Renewal: 15.00

Last Renewal or Reinstatement Date*: 12/4/2018

WV Engineer Intern: EI Certification Number:

EI Issue Date:

Primary Address of Record: 300 ASSOCIATION DRIVE
CHARLESTON, WV 25311

Primary Employer of Record: THE THRASHER GROUP, INC.
300 ASSOCIATION DRIVE
CHARLESTON, WV 25311

* 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 2/11/2019.

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

* 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 12/31/2018.

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 Romney Wastewater Treatment Plant and Lift Station Upgrades

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

Malden Public Service District I&I Reduction and Wastewater Treatment Plant

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

Malden Public Service District Wastewater Treatment Plant Upgrade

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

Paden City Wastewater Treatment Plant Upgrades

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

City of Oak Hill I&I Reduction and Wastewater Treatment Plant

Role: Project Manager
> Fayette 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

THIS IS ONE FORM OF YOUR RENEWAL RECEIPT

PLEASE SAVE THIS FOR YOUR RECORDS

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



DANIEL E. FERRELL



Project Engineer



Ashley Reed, EI is a 2014 University of Akron graduate with a Bachelor of Science in civil engineering. She is a skilled civil engineer with a specialty in public utilities. Prior to becoming a full-time Thrasher employee, she interned for a large engineering firm in Ohio where she developed skills in hydraulic modeling.

Ashley has utilized her experience and education to provide assistance to Project Managers and other Project Engineers through the preparation of preliminary engineering reports, cost estimates, and permit and funding applications. Additionally, she assists in permitting preparation of construction documents and mapping. Ashley'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

Experience

**Town of Capon Bridge
Sanitary Sewer Upgrades**
Role: Project Engineer
> Hampshire County, WV

**City of Ripley Sanitary
System Improvements
Project Phase II**
Role: Project Engineer
> Jackson County, WV

**Town of Accident
Wastewater Treatment Plant
Upgrades**
Role: Project Engineer
> Garrett County, MD

**Charles Town Utility Board
General Services**
Role: Project Engineer
> Jefferson County, WV

**City of Bridgeport
Wastewater System
Improvements and Treatment
Plant Project**
Role: Project Engineer
> Harrison County, WV

Treatment Plant Process Engineer



Education

Bachelor of Science,
Civil Engineering
West Virginia Institute of
Technology

Registrations

Professional Engineer:

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

Affiliations

- > American Water Works Association - Board Member, National Director
- > Water Environment, West Virginia Section

Jeffery Ekstrom, PE is a Project Manager who thrives on managing multiple tasks to meet the needs of clients. Throughout his 24 years of experience, Mr. Ekstrom has used his organizational, problem solving and leadership skills to manage, and lead the design of infrastructure projects ranging from \$100,000 to \$31 million in construction costs.

His area of specialty is environmental engineering with focus on the design of water and wastewater treatment plants. Mr. Ekstrom is noted for being the first engineer to design treatment plants that implement new technologies in the state of West Virginia. This accomplishment has made him a sought after water and utility engineer. Mr. Ekstrom puts clients first and provides them with options on the most practical and economical ways are to solve a problem. His problem-solving skills and knowledge on water and wastewater plants make him invaluable to Thrasher.

In June of 2018, Jeff took over as the 2018-2021 West Virginia Representative on the American Water Works Association's (AWWA) National Board of Directors. Jeff was nominated and voted in by the West Virginia Section of AWWA Board of Trustees. As part of his duties with the National Board, Jeff will be working to help establish policies for the overall management and direction of National AWWA affairs.

Experience

City of Romney Wastewater Treatment Plant and Lift Station Upgrades

Role: Project Engineer

- > Hampshire County, WV

Oak Hill Sanitary Board Wastewater Treatment Plant Upgrade

Role: Treatment Plant Engineer

- > Fayette County, WV

Shepherdstown Wastewater Treatment Process Design for Chesapeake Bay Initiative

Role: Project Engineer

- > Jefferson County, WV

Berkeley County Public Service District Inwood Wastewater Treatment Plant Bay Upgrade

Role: Treatment Plant Engineer

- > Berkeley County, WV

Beckley Sanitary Board Wastewater Treatment Plant Upgrade

Role: Project Engineer

- > Raleigh County, WV

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800-324-6170 Toll Free
www.wvpebd.org

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PLEASE SAVE THIS FOR YOUR RECORDS

Date of Renewal: December 7, 2018
Amount Paid: \$70.00



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

JEFFERY D. EKSTROM
WV PE [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

JEFFERY D. EKSTROM
THE THRASHER GROUP, INC.
300 ASSOCIATION DRIVE
PO BOX 2431
CHARLESTON, WV 25311

Operator/Constructibility



Education

Associate of Business
Salem College

Richard Hudkins is experienced in all facets of construction management and monitoring, specifically in the areas of wastewater and potable water projects. Prior to joining Thrasher, Richard served as General Manager of the Greater Harrison Public Service District. During his time at the Greater Harrison PSD, he gained a better understanding of not only how to manage projects, but what clients expect. The knowledge Richard gained at the Greater Harrison PSD has translated into excellent client relations and time management now working on the engineering end of projects.

Richard brings strong communication and administrative skills to project management, tracking product quantities and keeping detailed digital and photo logs. He also meets with residents, project engineers and the utility's owner on a regular basis to keep them apprised of construction.

Experience

Paden City Phase I Sanitary and Storm Sewer Collection System

Role: Project Inspector
> Wetzel County, WV

City of Pine Grove Upgrading Sewer Collection System New Lines and Pump Stations

Role: Project Inspector
> Wetzel County, WV

Town of Grantsville Wastewater Treatment Plant Upgrade

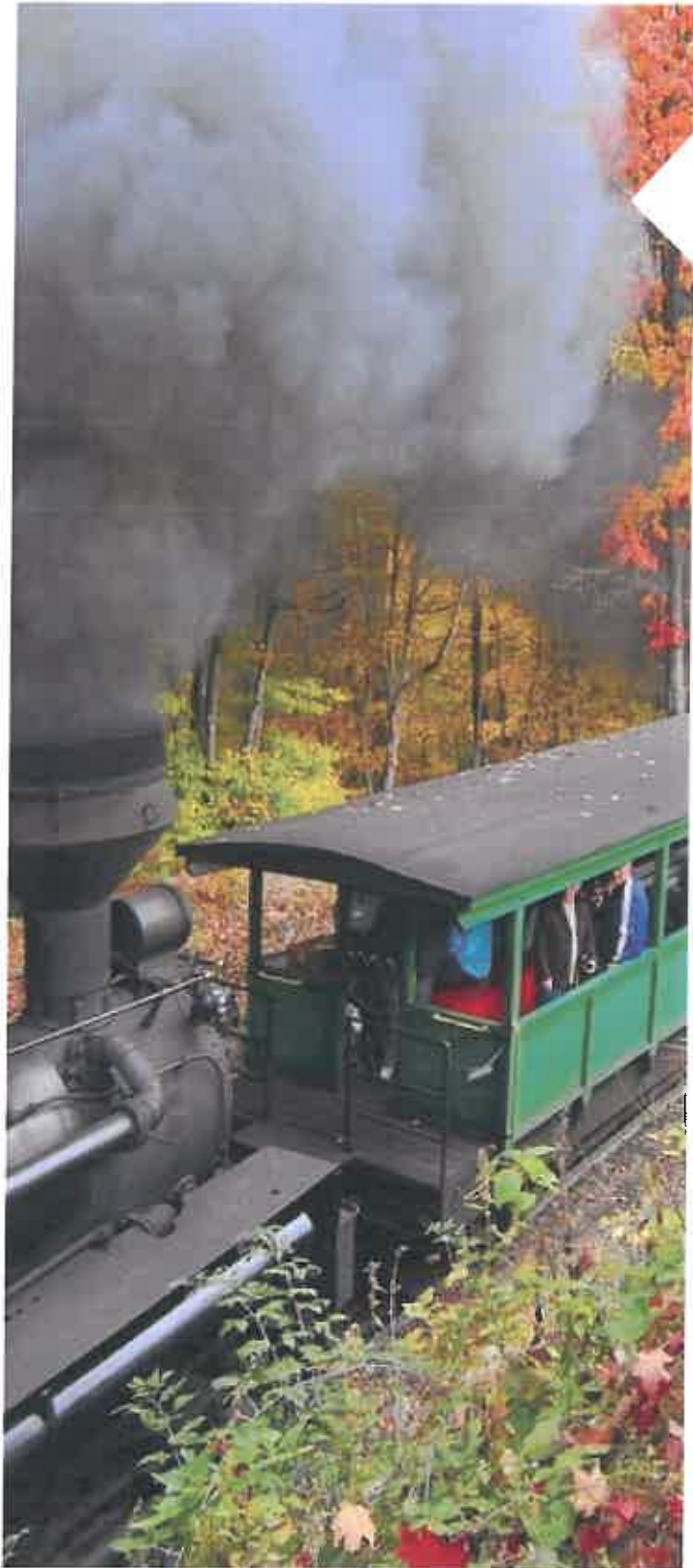
Role: Project Inspector
> Calhoun County, WV

City of Kingwood Wastewater Improvements Project

Role: Project Inspector
> Preston County, WV

Town of Accident Wastewater Treatment Plant Upgrades

Role: QA/QC
> Garrett County, MD



Preston County Sewer PSD

Mr. Ken Bernard, Chief Operation
247 Casteel Road | Hazelton, WV 26525
304-379-1209

City of Ripley

Ms. Carolyn Rader, Mayor and Utility Board
Chairwoman
203 South Church Street | Ripley, WV 25271
304-532-3657

City of Bridgeport

Mr. Jared Cummons, Superintendent of
Public Utilities
515 W. Main Street | Bridgeport, WV 26330
304-842-8231

THRASHER

ARCHITECTURE | ENGINEERING | FIELD SERVICES