



The following documentation is an electronically-submitted vendor response to an advertised solicitation from the *West Virginia Purchasing Bulletin* within the Vendor Self-Service portal at wvOASIS.gov. As part of the State of West Virginia's procurement process, and to maintain the transparency of the bid-opening process, this documentation submitted online is publicly posted by the West Virginia Purchasing Division at WVPurchasing.gov with any other vendor responses to this solicitation submitted to the Purchasing Division in hard copy format.

Header 1

List View

- General Information**
- Contact
- Default Values
- Discount
- Document Information
- Clarification Request

Procurement Folder: 1917106

Procurement Type: Central Purchase Order

Vendor ID: VS0000013207

Legal Name: MONTUM ARCHITECTURE LLC

Alias/DBA:

Total Bid: \$0.00

Response Date: 03/17/2026

Response Time: 8:00

Responded By User ID: Montum

First Name: Thomas

Last Name: Pritts

Email: tom@montumarch.com

Phone: 304-276-7151

SO Doc Code: CEOI

SO Dept: 0603

SO Doc ID: ADJ2600000006

Published Date: 3/2/26

Close Date: 3/17/26

Close Time: 13:30

Status: Closed

Solicitation Description: General Instruction Building Design-Camp Dawson

Total of Header Attachments: 1

Total of All Attachments: 1



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

**State of West Virginia
 Solicitation Response**

Proc Folder: 1917106
Solicitation Description: General Instruction Building Design- Camp Dawson
Proc Type: Central Purchase Order

Solicitation Closes	Solicitation Response	Version
2026-03-17 13:30	SR 0603 ESR03172600000006012	1

VENDOR
 VS0000013207
 MONTUM ARCHITECTURE LLC

Solicitation Number: CEOI 0603 ADJ2600000006
Total Bid: 0
Response Date: 2026-03-17
Response Time: 08:00:33
Comments:

FOR INFORMATION CONTACT THE BUYER

David H Pauline
 304-558-0067
 david.h.pauline@wv.gov

Vendor Signature X **FEIN#** **DATE**

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

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
1	General Instruction Building Design-Camp Dawson				0.00

Comm Code	Manufacturer	Specification	Model #
81101508			

Commodity Line Comments: EOI Response

Extended Description:

Provide professional architectural and engineering design services per the attached documentation.



**Expression of Interest
West Virginia National Guard
Camp Dawson General Instruction Building Design EOI
Kingwood, WV
CEOI ADJ2600000006
March 17, 2026**



**Department of Administration
Purchasing Division
2019 Washington Street East
Charleston, WV 25305-0130**

Montum Architecture, LLC

55 ER Path, Keyser, WV 26726 • 304-276-7151 • tom@montumarch.com
montumarch.com



Table of Contents

Letter of Interest

TAB 1 – Firm Qualifications

- Montum Architecture LLC – Firm Profile
- Miller Engineering, Inc. – Firm Profile
- Arrow Engineering – Firm Profile
- RK&K – Firm Profile
- GPRS LLC – Firm Profile

TAB 2 – Project Organization

- Staffing Plan
- Organization Chart
 - Montum Architecture LLC – Staffing Resumes
 - Miller Engineering, Inc. – Staffing Resumes
 - Arrow Engineering – Staffing Resumes
 - RK&K – Staffing Resumes

TAB 3 – Experience

- Montum Architecture LLC – Project Experience
- Miller Engineering, Inc. – Project Experience
- Arrow Engineering – Project Experience
- RK&K – Project Experience
- GPRS LLC – Project Experience

TAB 4 – Project Forms

- Signed EOI Forms



March 17, 2026

State of West Virginia
Department of Administration, Purchasing Division
2019 Washington St. E.
Charleston, WV 25305

**Subject: National Guard Camp Dawson General Instruction Building Design
EOI, CEOI 0603 ADJ2600000006**

Dear Sirs and Madams,

Montum Architecture, LLC is pleased to submit this Statement of Qualifications to provide architectural and engineering services. Montum is headed by Tom Pritts, an architect with 23 years of experience designing a multitude of project types. He will be the primary contact for the duration and provide architectural design and construction administration services. Tom has completed designs for various State and local government agencies across the state. Previous National Guard work includes Tri-State Readiness Center Addition and Renovation, Bridgeport FWAATS Restroom Renovations, Jackson County AFRC Wash Canopy, USPFO Restroom Renovations, and Camp Dawson FMS4 Fire Protection.

Montum has partnered with Miller Engineering, Inc. to provide mechanical, electrical, and plumbing design services; RK&K for civil, site design and geotechnical consulting services; Arrow Engineering for structural design services; and GPRS for utility location services. This team has collaborated on numerous projects together in various capacities, including multiple projects for the West Virginia Army National Guard.

All four of the identified goals and objectives in the EOI will be addressed by the design team:

2.1 The design team prides itself on beginning each project with a comprehensive evaluation of existing conditions, project needs, and constraints that inform the most appropriate design approach and project goals. Our project sheets clearly demonstrate extensive experience working within this framework. A thorough initial project assessment is the first critical component in defining project needs and guiding design decisions.

2.2 Geotechnical and utility location will be part of the project scope.

Montum Architecture, LLC

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montumarch.com

2.3 The design team will provide the design services including 35%, 65%, 95%, and 100% document submissions, including estimated construction costs.

2.4 Each primary designer remains responsible to the project as the project progresses into construction. This continuity of design leadership and decision-making knowledge positively impacts the effectiveness and efficiency of construction administration services.

The overarching goal of every project is to deliver exemplary design solutions that perform to the greatest extent possible within established budget constraints. By striving to maximize the value of every project dollar, we inherently serve our client's best interests.

Thank you for taking the time to review the attached information regarding our design team. We appreciate your consideration and look forward to the opportunity to work with you.

Respectfully submitted,
Montum Architecture LLC



Thomas Pritts, AIA, CSI-CCS, LEED-AP

Montum Architecture, LLC

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Montum



Montum Architecture, LLC Firm Profile

Who We Are.

Montum Architecture, LLC was founded in 2017 to offer architectural design and consulting services. The firm is a Limited Liability Company registered in West Virginia, as well as in Maryland and Virginia. Montum Architecture is led by a licensed principal architect and a design professional who collaborate closely to manage projects from concept through construction administration, ensuring seamless coordination of building plans and specifications. The firm is also committed to evidence-based design, using research and data to inform decisions and create spaces that enhance functionality, sustainability, and user experience.

The overarching goal of every project is to deliver exemplary design solutions that perform to the greatest extent possible within established budget constraints. By striving to maximize the value of every project dollar, we inherently serve our client's best interests.

Our Services

Government	Planning
Institutional	Building Assessment
Medical	Architectural Detailing
Higher Education	Specification Writing
Multi-Dwelling	Contract Administration
Schools	Design/Bid/Build
Retail/ Hospitality	Renovation
Emergency Services	Renderings
Recreation	Life Safety Evaluations
Financial	Design/Build
Warehouse	Project Management

Why Choose Us.

Communication

Tom Pritts will be the primary point of contact for Montum's architectural services. Montum will manage communication with the Owner, Contractor, and sub-consulted team of members as necessary.

Project Budget

Previous work experience has shown a consistent +/-2% bid-to-budget ratio.

Project Schedule

Montum will monitor and adjust the design tasks in order to complete the design work in the established timetables. They will also work diligently during project construction to maintain the contractual constraints placed as part of the contractor's bid.

Design Software

Montum utilizes Autodesk Revit for all design projects incorporating three-dimensional Building Information Modeling and parametric elements. Existing condition documentation includes drone imaging, 360 camera views, and LiDAR telemetry.

Applicable Experience

The wide-ranging project experience includes new construction and renovation projects of many use and construction types, project limitations, and project deliveries methods.





Firm Profile

MILLER ENGINEERING is a solely held (S) corporation owned by Craig Miller PE, President. The corporation maintains a Certificate of Authority with the WV State PE Board and has carried professional liability insurance since its inception. Neither the firm nor its professional engineers have ever faced disciplinary action in any form from the states in which they are registered.

Our engineered solutions involve a detailed assessment process: investigation, observation, communication with stakeholders, system analysis, building modeling and engagement from our entire team. We approach each and every project with this process and the guiding principle that buildings are designed to be livable and function in their intended purpose.

*Over the past 14 years Miller Engineering, Inc. (MEI) has engineered solutions for over \$23.2M in MEP system upgrades, repairs and renovations for projects of all scopes and sizes, with clients ranging from private owners to local and state governments. With a strict attention to detail and commitment to delivering a job done well and done right the first time, every time, **MEI has accumulated a change order percentage of less than 0.1% over the past 8 years.***

Our team has unique skill-sets regarding engineered renovation solutions. Each member of the team has hands-on mechanical system experience including installation, construction, design and maintenance.

*Miller Engineering takes pride in being **different by design**, and that difference shines through in all phases of our work and continued relationships with our clients.*

- Experienced and Licensed Professional Engineers
- Quality, Value-Engineered Project Delivery
- Qualified Construction Representative on Staff
 - LEED-AP Certified
- Below Industry Change Order Status
 - Building Information Modeling
 - Emergency Facility Response

Engineering Design and Consultation

- Mechanical
- Electrical
- Plumbing
- HVAC Design
- Renovation
- New Construction
- Building Information Modeling

Aquatic Facility Design

- Public Pools & Areas
- ADA Compliance
- Indoor & Outdoor (air flow)
- Chlorination/Filtration

Construction Administration

- Maintenance/Facility Improvement Plans
- Contract Administration
- Code Observation

Communication System

- Intercomm & Public
- AddressVoice/Data/CATV
- Urgent Response

Energy

- Power Supply (main & backup)
- Green & Renewable Consulting
- Systems Utilization & Upgrades
- Sustainable Solutions

Facility Utilization

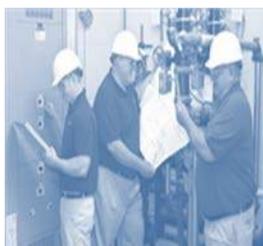
- Systems Assessment & Solutions
- Adaptive Re-use
- Planning/Life-Cycle Control
- Engineered Replacement

Life Safety Inspection/Design

- Fire Protection & Alarm Systems
- Access Control
- Fire & Electrical Investigation

Industry Experience

- Education
- Local & State Government
- Commercial Development
- Healthcare





Residential

Commercial

Industrial

Arrow Engineering
is a structural
engineering firm
headquartered in
Morgantown, WV.
Serving clients in
the *residential,*
commercial and
industrial markets.

Arrow Engineering delivers success to our clients with three promises we commit to in every project we undertake:

- 1. Maintain exceptional knowledge of construction practices.**
- 2. Deliver quality documents that are practical and detailed.**
- 3. Pledge to rise above and beyond our clients' expectations.**

Arrow's founder and President, Michael Howell, PE SE has over two decades of industry experience as a structural engineer, civil engineer, and contractor. Arrow's team is prepared to bring that experience into every project.

We consider it a great honor to serve our clients.

RK&K Qualifications



RK&K is headquartered in Baltimore, Maryland, with an established office in Keyser, West Virginia, serving the region for more than 25 years. As a full-service planning, engineering, environmental, and construction management firm, RK&K caters to a diverse clientele across the mid-Atlantic and Southeastern United States. Our talented and diversified staff provides creative solutions to complex challenges, enhancing the quality of life in our communities.

REPUTATION AND RECOGNITION

RK&K has built a reputation as a trusted partner, responsive employer, and community steward. Our technical expertise consistently results in award-winning projects, earning us a top ranking firm on the Engineering News Record's listing of the Top 500 Design Firms.

COMPREHENSIVE SERVICE OFFERINGS

We offer a wide range of services that optimize project implementation, including:

- **Surveys and Site Engineering:** Comprehensive site evaluations to inform design and development.
- **Roadway Improvements:** Enhancing existing infrastructure to improve safety and accessibility.
- **Traffic Calming Measures:** Implementing strategies to reduce vehicle speeds and enhance pedestrian safety.
- **Drainage Studies:** Assessing and designing effective drainage solutions to manage stormwater.

RK&K excels in facilitating stakeholder collaboration to advance projects focused on land development, roads, streetscapes, parks, recreational areas, and various infrastructure initiatives. Our environmental site assessments, particularly Phase I Environmental Site Assessments, are essential for identifying

potential liabilities during property transactions and site development, ensuring successful project outcomes that adhere to budget and timelines.

PROJECT TYPES AND CAPABILITIES

RK&K provides a comprehensive suite of civil engineering services, from initial site evaluation through construction, encompassing urban design, landscape architecture, and stormwater management. Our involvement in significant projects, such as the I-40 Smart Fiber Project, demonstrates our commitment to enhancing connectivity and supporting future capabilities for connected and automated vehicles through the installation of Intelligent Transportation System (ITS) devices.

ADA AND ACCESSIBLE DESIGN

RK&K prioritizes accessibility in our projects, ensuring they are inclusive and meet the needs of all community members. A notable example is our work on the redevelopment project at the Maryland School for the Blind, where we exceeded ADA standards to create an environment that supports students with varying levels of mobility.

CLOUD-BASED CADD COLLABORATION

RK&K utilizes a cloud-based Building Information Modeling (BIM) management and collaboration technology that connects the entire project team, streamlining project review and coordination workflows. This dynamic file management system reduces the coordination cycle, enabling key project members to focus on critical tasks by automating updates of the merged coordination model. Benefits include:

- Access to the latest drawings and models for the extended project team
- Reduction of the collaboration cycle from weeks to days



Minimization of potential project rework

- Empowerment of the project team to conduct their own clash detection with the latest models
- Capability for participants to bring the model to the job site during the construction phase

SITE OPTIMIZATION UTILIZING SITEOPS®

Site optimization, or "optioneering," is a unique service RK&K provides through the use of SITEOPS® software. This tool allows us to perform conceptual design layouts significantly faster than traditional CADD methods. Our team includes multiple professional engineers certified in SiteOPS®. This optimization tool integrates various data sources, from detailed CADD survey files to publicly available GIS files, and hosts them in a secure, cloud-accessible environment. This capability enables us to engage in dynamic discussions during meetings, exploring various "what-if" scenarios.

The software facilitates rapid layout adjustments for horizontal and vertical road alignments, pad elevations, and grading solutions targeting earthwork balance to minimize costs. We can incorporate paving materials, drainage networks, stormwater management facilities, and other constraints, such as sensitive environmental areas and existing infrastructure. As the software runs its optimization, a dynamic cost estimate is developed in real-time, allowing us to make informed decisions earlier in the design process, ultimately saving time and budget.

PROVEN CAPABILITIES

RK&K consistently exceeds client expectations by providing:

- **Engaged Management:** RK&K's management is fully involved in project development and mentoring future leaders. Our horizontal organizational structure keeps project teams flat, which enhances engagement and focus on project details while controlling costs by avoiding multi-layer hierarchies. Regular coordination

and interaction among team members enable the project team to remain aligned with common goals.

- **Collaborative Approach:** At RK&K, we do not operate with multiple profit centers or encourage internal "silo" building. Our leaders and teams work together to achieve successful projects and satisfy clients. Our company structure and project approach facilitate efficient teams equipped with the necessary resources to respond to client needs.
- **Creative Solutions:** Emphasizing teamwork and collaboration, RK&K develops thoughtful, creative, cost-effective, and realistic design solutions for our clients.
- **Intelligent Design:** By matching client challenges with appropriate expertise, we achieve clever designs and sustainable results. Our commitment to internal education and mastery of new technologies positions us at the forefront of our field.

Our team comprises engineers, planners, Geographic Information System (GIS) specialists, and environmental professionals dedicated to helping local governments attract and retain business, assisting employers with site evaluation and selection, and transforming brownfield sites, corridors, and buildings into marketable, revenue producing assets.

Our team brings extensive, proven, and specialized comprehensive planning experience necessary to successfully deliver services for this project. In addition to our experience and expertise, our team members are driven to improve the quality of life in the communities where they live, work, and play.

SERVICES

PROJECT MANAGEMENT AND COORDINATION

RK&K provides comprehensive project management and coordination services across various sectors. Our team is adept at overseeing project life-cycles from inception to completion, ensuring that all phases are executed efficiently and effectively. This includes managing timelines, budgets, and resources while maintaining open lines of communication with all stakeholders.

CONSTRUCTION ENGINEERING AND INSPECTION (CEI)

Our CEI services are designed to ensure that construction projects adhere to all regulatory and quality standards. RK&K provides skilled inspectors and engineers who monitor construction activities, perform quality assurance checks, and manage compliance with project specifications. This includes oversight of construction schedules, cost management, and coordination with contractors to facilitate smooth project execution.

STRUCTURAL ENGINEERING

RK&K's structural engineering team specializes in the design and analysis of various structures, including bridges, buildings, and other infrastructure. We conduct detailed inspections and assessments to determine the structural integrity of existing facilities and develop innovative solutions for renovated facilities and new construction. Our designs comply with all relevant codes and standards, ensuring safety and durability.

SURVEYING SERVICES

RK&K provides comprehensive surveying services, including land surveying, property/easement plats, and right-of-way acquisition. Our surveyors utilize advanced technologies such as GPS and high-density laser scanning to deliver precise data that informs project planning and execution. This ensures that all projects are built on accurate and reliable information.

SITE DEVELOPMENT

Our site development services encompass civil engineering, landscape architecture, and environmental compliance. RK&K's multidisciplinary approach allows us to manage complex site development projects effectively, ensuring compliance with local, state, and federal regulations. We assist clients navigate the permitting process and coordinate with various agencies.

facilitating project approvals.

COORDINATION AND CONSTRUCTION SERVICES

RK&K provides essential coordination services during the construction phase, ensuring that all project elements align seamlessly. This includes managing contractor activities, scheduling, and communication among stakeholders to mitigate risks and enhance project efficiency. Our construction management team is dedicated to maintaining high standards of quality and safety throughout the construction process.

BIDDING ASSISTANCE

RK&K assists clients in the bidding process by developing bid packages, conducting pre-bid meetings, and evaluating bids to ensure compliance with project requirements. Our team ensures that all potential bidders understand the project scope and requirements, facilitating a competitive bidding environment that attracts qualified contractors.

CIVIL SITE ENGINEERING

RK&K offers civil site engineering services that cover all aspects of site development, including grading, drainage, and utility design. Our engineers work collaboratively with clients to develop comprehensive site plans that meet regulatory requirements and project goals. We also provide environmental assessments and permitting support to ensure compliance with all applicable laws.

FUNDING ASSISTANCE

RK&K provides funding assistance services to help clients identify and secure financial resources for their projects. This includes grant writing, financial analysis, and coordination with funding agencies to ensure that projects are adequately financed. Our team has a proven track record of successfully obtaining funding for a wide range of projects, enhancing their viability and sustainability.

GPRS is the nation's largest company dedicated to Intelligently Visualizing the Built World® for clients throughout the U.S. What began with a single ground penetrating radar unit in the trunk of founder and President Matt Aston's car in 2001 has grown to a \$200-million company. Our firm now encompasses every area of construction site and facility safety across virtually every industry.

We offer a full suite of project visualization services to help you plan, build, and manage better:

GPRS INTELLIGENTLY VISUALIZING THE BUILT WORLD

PLAN | BETTER.

Prevent rework and delays with accurate as-built documentation, including utility maps, 2D CAD, and BIM models ■

PLANNING & DESIGN

- REALITY CAPTURE
- EXISTING CONDITIONS DOCUMENTATION
- BIM MODELING
- 3D PHOTOGRAMMETRY & LASER SCANNING
- AS-BUILT CREATION
- CLASH DETECTION

BUILD | BETTER.

Dig, drill, and build with certainty using accurate subsurface and infrastructure data ■

CONSTRUCTION

- GROUND PENETRATING RADAR (GPR)
- CONCRETE SCANNING
- UTILITY LOCATING
- WATER LEAK DETECTION
- CCTV VIDEO PIPE INSPECTION
- 3D LASER SCANNING

MANAGE | BETTER.

Access up to date, layered facility records in SiteMap®, available 24/7 and securely shareable ■

FACILITY & PROJECT MANAGEMENT

- SITEMAP GIS PLATFORM
- VIRTUAL TOURS
- UPDATED FLOORPLAN AND REFLECTED CEILING PLANS
- BOMA MEASUREMENTS
- DIGITAL PLAN ROOM
- AS-BUILT DRAWING UPDATES

Our Rapid Response Team of Project Managers serve every major U.S. market, and all are trained in Subsurface Investigation Methodology (SIM), the most rigorous and specialized non-destructive investigation training available. There's a reason we call our field team Project Managers. It is because they are highly trained to provide a consultative approach to your job – to go above and beyond to provide you with the accurate information you need. **In many cases, you can have a Project Manager on site within 48 hours, almost anywhere in the country.**

We provide complimentary SiteMap® Personal access and free PDF and .KMZ files of every outdoor utility locate, and can craft customized reports, maps, and models to meet your needs, from pre-planning and prefabrication through operation and maintenance.

The GPRS Difference: GPRS has a 99.8% accuracy rate in utility locating and concrete scanning because providing accurate data isn't just about using the best technology, it's about making sure the people using it are the best in the business.



Staff – Proposed Staffing Plan:

**Architect/ Team Leader/
Primary Point of Contact**

Thomas Pritts, AIA

**Lead Designer/BIM Specialist/
BIM Coordinator**

Jordyn Henigin

**Engineer in Responsible Charge
Lead MEP Engineer
MEP Designer**

***Craig Miller, PE
Travis Taylor, PE
Tyler Trump***

**Lead Structural Engineer
Chief Engineer
Senior Engineer
Project Engineer
Junior Engineer
CAD Technician**

***Michael Howell, PE
Carol Stevens, PE
Ashbee Sykes, PE
Philip Bailey, PE
Alex Yoder
Zachary Howell***

**Project Manager
Project Engineer
Project Engineer**

***John Cole, PE
Jeff Stanislawczyk, PE
Tom Caldwell, PE***

Montum Architecture, LLC

55 ER Path, Keyser, WV 26726 ● 304-276-7151 ● tom@montumarch.com
montumarch.com





Thomas Pritts, AIA, LEED-AP, CSI-CCS

Tom founded Montum Architecture in 2017. He has more than 23 years of experience in design, specification, and project management. Tom has designed and managed dozens of built projects. His experience encompasses a wide range of projects including K-12 and higher education facilities, financial institutions, multi-family housing, and automotive dealerships. A native of Mineral County, Tom is member of the West Virginia Chapter of American Institute of Architects and was involved in the establishment of the US Green Building Council's West Virginia chapter. He is highly skilled in the design of complex building systems, technical construction detailing and specifying, and construction contract administration. These skills were critical in the development and maintaining of many multi-year, multi-project relationships with Clients.

Project Role: Relationship Manager – Primary Point of Contact

- Principal in Charge
- Design and Project Management
- Concept and Construction Design
- Quality Assurance and Control

Professional History

2017- Present	Montum Architecture	Architect
2004-2017	Alpha Associates	Associate and Architect
2003	Marshall Craft Associates	Architectural Intern

Education

2004	Virginia Tech	Bachelors of Architecture
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Licenses and Certifications

- Licensed Architect (West Virginia, Maryland, Virginia)
- NCARB Certificate
- Construction Specifier Institute – Certified Construction Specifier
- LEED-AP Certified
- 30-hour OSHA Card

Professional Project Highlights

- Mineral County Commission - Facilities Additions and Renovations – Keyser, WV
- Farm Labor Housing Project – Moorefield, WV
- Keyser Senior Center – Keyser, WV
- State of West Virginia General Services – Elevator Replacement Projects, Various Locations
- State of West Virginia General Services – Chiller Annex Project
- WV National Guard – FWAATS Restroom Renovations
- WV National Guard – USPFO Restroom Renovations
- WV National Guard – Tri-State Readiness Center Addition
- WV National Guard – Camp Dawson FMS 4 Renovation
- WV National Guard – Buildings 227, 231, and 244 Renovations
- WV National Guard – Jackson County Readiness Center Wash Bay Canopy
- Potomac Valley Hospital - Renovation Project

Montum



- Potomac Valley Hospital – Addition Project
- Potomac Valley Hospital – MOB Renovation
- Grant Memorial Hospital – Outpatient Renovation Schematic Design
- Petersburg Doctor’s Office – Renovation Schematic Design
- Potomac State College – Bachelor of Nursing Renovation
- Wyoming East High School HVAC Renovation – Wyoming County Schools, WV
- Westside High School Roof and HVAC Renovation – Wyoming County Schools, WV
- Career and Technical Center Door and Window Project – Wyoming County Schools, WV
- Wyoming County Schools Central Office Renovation
- Mountainview and MTEC HVAC Renovation – Monongalia County Schools, WV
- Adam’s Funeral Home Garage and Deck Renovations
- Cass Scenic Railroad State Park - Campground
- Lost River State Park – Campground
- Berkeley Springs State Park – Pool Bathhouse Roof Replacement
- Berkeley Springs State Park – Old Roman Bath Renovation
- Blackwater Falls State Park – Boiler Room Renovation
- Watters Smith State Park - Pavilion
- WV DNR Necropsy Lab
- WV DNR Plum Orchard WMA Maintenance Building
- Waxler Warehouse – Fire Pump Replacement, Old Warehouse, and New Warehouse Renovation Projects
- Short Gap Volunteer Fire Department
- REACT Robotics Education Center – Phases I and II
- Blackwater Ministerial Food Pantry
- Asbury Steeple Apartment Renovation
- Humpty Dumpty Learning Center Renovations
- The Appalachian Office Space and Apartment Renovation
- Burlington United Methodist Family Services – Various Renovation Projects
- Our Lady of the Mountains Parish – Bathroom Renovation
- Mountain View Assembly of God – Rec Hall Ceiling Design
- EA Hawse Recreation Center



Professional Project Highlights (former employment built projects)

- Potomac State College – ADA Connector Building, Church-McKee Plaza, Shipper Library Façade
- WVU Engineering Sciences Building – East Wing Addition, 10th Floor Fit-Out, Basement Renovation
- WVU Engineering Research Building – G07 & G08 Renovation
- WVU Equine Education Center
- WVU College of Physical Activities and Sports Sciences/ Student Health Center
- WVU Center for Alternative Fuel Engines and Emissions
- WVU Colson Hall Water Infiltration Repairs
- WVU Mountainlair Water Infiltration Repairs
- WVU Chemistry Research Laboratories Fit-Out
- WVU Creative Arts Center Wheelchair Lift
- Alderson Broaddus University – Pyles Arena Deck Replacement
- Glenville State College – Morris Stadium Skybox
- Washington High School, Jefferson County Schools, WV
- Pineville Elementary School, Wyoming County Schools, WV
- Huff Consolidated School, Wyoming County Schools, WV
- Aurora School Addition, Preston County Schools, WV
- Riverview High Field House Design-Build, McDowell County Schools, WV
- Safe School Entries, Monongalia County Schools, WV
- Morgantown High Elevator, Monongalia County Schools, WV
- 2010 Comprehensive Education Facilities Plan- Monongalia County Schools, Wyoming County Schools
- Clear Mountain Bank Branches, Oakland, MD - Reedsville, WV - Kroger-Sabraton, WV
- Grant County Bank, Petersburg, WV
- Fairmont Federal Credit Union, Bridgeport, WV
- Freedom Ford, Kia, and Volkswagen Automotive Dealerships, Morgantown and Clarksburg, WV
- Jenkins Subaru Addition, Bridgeport, WV
- Elkins Fordland Renovation - Elkins Chrysler Dealership, Elkins, WV
- Harry Green Nissan Design-Build, Clarksburg, WV
- Cool Green Automotive Addition and Renovation, Shepherdstown, WV
- Veteran's Affairs – OI&T Office Fit-Out, Shepherdstown, WV
- OPM, Eastern Management Development Center Addition, Shepherdstown, WV
- National Energy Technology Laboratory – Building B-8 Roof Replacement, Morgantown, WV
- US Coast Guard – Conference Room Renovation, Martinsburg, WV
- Eastern Panhandle Transit Authority Addition, Martinsburg, WV
- Cacapon State Park – Old Inn HVAC and Interior Renovation
- WV National Guard - Armory Office Fit-out, Parkersburg, WV
- South Berkeley Fire Station, Inwood, WV
- Jefferson County Emergency Services Agency – New Headquarters
- Berkeley County Ambulance Authority – South Station Renovation and Addition
- Poolhouse Renovation, McMechen, WV
- Community Center, Ridgeley, WV
- Wastewater Treatment Plant Renovations, Martinsburg, WV
- Public Works Building, Fairmont, WV
- Oatesdale Park Little League Fields, Martinsburg, WV
- St. Luke Canopy Replacement, Morgantown, WV
- Freshwater Institute – Aquaculture Building, Shepherdstown, WV
- Clarion Hotel Renovation, Shepherdstown, WV
- Shenandoah Village Apartments – Façade and Deck Replacement, Martinsburg, WV
- Regional Eye Associates/ Surgical Eye Center, Morgantown, WV
- Bavarian Inn – Infinity Pool/ Pool Bar, Shepherdstown, WV



Jordyn Henigin, M.Arch

Jordyn joined Montum Architecture in May 2020. A recent graduate of Fairmont State University, She has been eager to enhance her skills in the business field and develop a stronger knowledge of architectural design principals and methods. Jordyn is in the process of pursuing her goal to become a licensed Architect.

Project Role: Design Professional

- Concept and Construction Design
- Building Information Modeling – Revit
- Architectural Rendering - Lumion

Professional History

2020- Present	Montum Architecture	Design Professional
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Education

2020	Fairmont State University	Bachelors of Architecture
2022	Fairmont State University	Masters of Architecture

Licenses and Certifications

- LEED-Green Associate
- 30-hour OSHA Card

Associations and Memberships

- Assoc. AIA

Professional Project Highlight

- Watters Smith State Park, Lost Creek WV
- Mon Co Schools Transportation Addition, Morgantown WV
- Jackson Co ARFC Wash Bay, Millwood WV
- BUMFS Staggers Recovery, Burlington WV
- BUMFS Knobley Rehab, Burlington WV
- Aging & Family Services of Mineral County - Keyser Senior Center, Keyser WV
- Mineral County Detention Center, Courthouse, and Annex addition and renovations, Keyser WV
- Larenim Park Amphitheater, Burlington WV
- Building 25 HVAC, Parkersburg WV
- WVGSD Elevator Modernizations
- Westside HVAC and Roof, Clear fork WV
- Ed Kelley Memorial, Keyser WV
- Cass Campground, Cass WV
- Waxler Warehouse, Keyser WV
- Greenbrier SF Headquarters, White Sulphur Springs WV
- FWAATS, Bridgeport WV
- WV Challenge Academy Maclin Hall



B. Craig Miller, PE

Craig founded Miller Engineering in 2003, and serves as President and Principal Engineer. He has more than 20 years experience in design, specification, operations and project management. During his employment with WVU, Craig was directly involved with approximately \$130 million in new capital construction. His experience with a wide range of projects including HVAC, electrical, plumbing, infrastructure upgrades, building automation, energy efficiency and maintenance/renovation, among others, allows him to serve in multiple capacities within a given project. Craig will serve as the “Relationship

Manager” for Miller Engineering as the main communication interface between the Owner, the design team, contractors and end users.

Project Role: Relationship Manager – Primary Point of Contact

- *Engineer in Responsible Charge*
- *Design and Project Management of Mechanical, Electrical, Plumbing Projects*
- *Concept and Construction Design*
- *Business Operations and Financial Management Oversight*
- *Quality Assurance and Control*

Professional Project Highlights

- Morgantown High School Area 4 HVAC Renovations
- WVU Life Sciences Building and Student Recreation Center – Owner’s Engineer
- WVANG Bridgeport FWAATS Restroom Renovations
- ChalleNGe Academy Maclin Hall Make Up Air Unit Replacement
- Advanced Surgical Hospital
- Camp Dawson FMS4 Fire Protection
- Chief Logan Lodge HVAC Renovations
- Cheat Lake Elementary & Middle School Renovations

Professional History

2003- Present	Miller Engineering, Inc.	President, Relationship Manager
2002-2003	Casto Technical Services	Existing Building Services Staff Engineer
2001-2002	Uniontown Hospital	Supervisor of Engineering
1995-2001	West Virginia University	Staff Engineer
1990-1995	BOPARC	Caretaker – Krepps Park
1983-1988	University of Charleston	Electrician/HVAC Mechanic

Education

1995	West Virginia University	BS- Mechanical Engineering
1988	University of Charleston	BA- Mass Communications

Licenses and Certifications

- Professional Engineer (West Virginia, Pennsylvania, Maryland, and Ohio)
- Licensed Master Plumber
- LEED-AP Certified



Travis Taylor, PE

Experience in project management facilitates Travis’s ability to create and design constructible projects. Prior to joining the Miller Engineering team he was directly responsible for managing \$10 million in electrical construction budgets. His experiences encompass both new construction and renovation. Travis maintains professional competencies by attending seminars and continuing education classes. These include local ASHRAE classes in addition to classes on electrical systems, and also steam systems through Shippenburg Pump Company. As lead engineer he provides HVAC, mechanical, plumbing, and electrical design solutions and services for our clients. In addition, he is part of our team’s complete assessment process in both planning and MEP design through construction administration.

Project Role: Lead MEP Engineer

- *Design of Mechanical, Electrical, and Plumbing Systems*
- *Building Information Modeling - Revit*
- *Constructible Materials Evaluation*
- *Site Evaluation and Mechanical System Review*
- *Submittal and RFP Review*
- *RFI Coordination, Review, and Response*
- *Construction Observation*

Professional Project Highlights

- WVANG Bridgeport FWAATS Restroom Renovations
- WVANG USPFO Buckhannon Restroom Renovations
- Camp Dawson FMS4 Fire Protection
- WVANG Jackson County AFRC Canopy
- WV State Building 25 (Piping, HVAC, Lighting)
- Hawks Nest Lodge Renovations
- Blackwater Falls Lodge Renovations
- Holly River State Park Primary Electric Service Replacements Phase I & II
- Pipestem Lodge McKeever Lodge HVAC Piping Replacement

Professional History

2011-Present	Miller Engineering, Inc.	Staff Engineer
2006-2011	Tri-County Electric, Co.	Project Manager
2006-2006	Schlumberger	Field Engineer Trainee - MWD

Education

2006 West Virginia University, BS – Mechanical Engineering

Licenses and Certifications

- Professional Engineer - State of West Virginia, Maryland
- OSHA 10-hour Course: Construction Safety & Health



Tyler Trump

Tyler joined Miller Engineering in August 2022. A recent graduate of West Virginia University, he has been eager to learn the means and methods of MEP consulting. Tyler assists the MEP design team with design calculations and is rapidly learning design software such as Autodesk REVIT and Hourly Analysis Program by Carrier. He is also learning construction administrations along with building, electrical, and plumbing codes and standards. Tyler is currently preparing to take the Fundamentals of Engineering Exam.

Project Role: Junior Engineer

- *Design Calculations*
- *Drafting of MEP Systems*
- *Assist with Construction Administration*

Professional Project Highlights

- Cass Scenic Railroad State Park Campground
- Lost River Campground
- Mountain Line Transit Authority Office Renovation
- WV Building 25 Lighting Upgrades
- Ronald McDonald House Morgantown Addition & Renovations
- McKeever Lodge Boiler Replacement
- Chief Logan Lodge HVAC Renovations
- ChalleNGe Academy Maclin Hall Make Up Air Unit Replacement

Professional History

2022- Present Miller Engineering, Inc. MEP Designer

Education

2022 West Virginia University, BS - Mechanical Engineering

Licenses and Certifications

Our Team



MICHAEL HOWELL P.E., S.E.

President & CEO

UNIVERSITY OF PITTSBURGH

Bachelor's of Science, Engineering

WEST VIRGINIA UNIVERSITY

Master's of Arts Business Administration

Mike's passion for construction ignited during his youth in New Brighton, Pennsylvania. From helping his father build a deck to volunteering on construction mission trips, his fascination with structures blossomed. He pursued this passion academically, earning a B.S. in Civil and Environmental Engineering from the University of Pittsburgh and later obtaining a Master's in Business Administration from West Virginia University.

Throughout his career, Mike has honed his expertise with reputable firms such as American Bridge Company, McKinney and Company, Brockenbrough and Associates, and Allegheny Design Services. Actively involved in professional organizations, he has held leadership roles in the American Society of Civil Engineers and the Richmond Joint Engineers Council. Mike's commitment extends beyond his professional realm; he engages in community service, serving on boards for organizations like Pace Enterprises and the Spark Imagination and Science Center. Residing in Morgantown, West Virginia, Mike balances his career with coaching youth sports and cherishing time with his two children.

As a professional speaker, Mike lectures on construction topics such as 'Lessons from the Great Builders: What History Teaches Us About Modern Construction,' 'Failure: When Engineers Make Mistakes,' and 'When Engineers Manage.'

PROFESSIONAL LICENSURE:

WV, VA, PA, IN, LA, CA, TN, MD, KY, TN, NJ, OH

Michael Howell, P.E., S.E.
President/CEO



EDUCATION

University of Pittsburgh
BSCE, 2005
West Virginia University, Executive Program
MBA 2014
The Pennsylvania State University
PhD of Engineering *Expected 2027*

PROFESSIONAL REGISTRATION

P.E. Alabama
P.E. Arkansas
P.E./S.E. California
P.E. Kentucky
P.E. Maryland
P.E. Missouri
P.E. North Carolina
P.E. Ohio
P.E. Pennsylvania
P.E. Tennessee
P.E. Virginia
P.E. West Virginia

BACKGROUND SUMMARY

2019 – Present	President Arrow Structural Engineering
2012 – 2019	Director of Sports & Recreation Senior Structural Engineer Allegheny Design Services
2008 – 2012	Structural Engineer Brockenbrough and Associates
2007 – 2008	Civil Engineer McKinney and Company
2005 – 2007	Field Engineer American Bridge Company

PROFESSIONAL SUMMARY

A 2005 graduate of the University of Pittsburgh with a Bachelor of Science in Civil Engineering and a 2014 graduate of West Virginia University with a master's degree in business administration. Licensed in numerous states as both a Professional Engineer and Structural Engineer. Experience in residential, commercial, heavy-highway, and industrial projects. Structural Engineering experience includes the design, specification, and evaluation of all typical construction materials including timber framing, structural steel, cold-formed steel, cast-in-place concrete, precast concrete, masonry, and aluminum. Performed forensic investigations, structural assessments, and has been a consultant for attorneys, real estate agents, insurance companies, and property owners in several legal cases. Expertise in historical and existing building assessments and renovations, risk assessment, structural failure and analysis, foundation design, subsidence evaluation, seismic and wind force detailing, and constructability assessments. Employment history includes tenures as a contractor, field engineer, civil engineer and structural engineer. Has presented numerous times on engineering management practices, design methods, and project case studies.

PROFESSIONAL ASSOCIATIONS

Pace Enterprises Board of Directors
Habitat for Humanity Construction
Barlett House Board of Directors
Spark Innovation and Science Center Board President
American Society of Civil Engineers Branch President
Richmond Joint Engineers Council Chair
Structural Engineers Institute Business Practice
ASCE 7 Timber Design Subcommittee



CAROL STEVENS P.E., F.ASCE

Chief Engineer

WEST VIRGINIA UNIVERSITY

Bachelor's of Science in Civil Engineering

THE PENNSYLVANIA STATE UNIVERSITY

Master's of Engineering in Engineering Science

Carol Stevens has established herself as a leading structural engineer with a robust background in designing and rehabilitating critical infrastructure across West Virginia and beyond. A graduate of West Virginia University with a Bachelor of Science in Civil Engineering and a Master's degree from The Pennsylvania State University, Carol boasts a remarkable career spanning several decades.

Since 2001, she has served as the president of CAS Structural Engineering, where her expertise has been instrumental in the design and structural repair of various facilities. Her portfolio features significant projects at Twin Falls Resort State Park, Hawks Nest State Park and Pipestem State Park, and historic restorations for structures such as the First Presbyterian Church and the West Virginia State Capitol Complex, all reflecting her commitment to maintaining architectural integrity while enhancing functionality.

Throughout her career, Carol has not only demonstrated her engineering prowess but has also garnered recognition for her contributions to the profession. Her work on the Upshur County Courthouse and the Robinson Grand Performing Arts Center earned a WVAIA Honor Award for Design Excellence, while her innovative repairs to the Main Capitol Building Dome received a NYAIA Merit Award for Design Excellence. With active involvement in professional associations including the American Society of Civil Engineers and the National Society of Professional Engineers, Carol is dedicated to advancing the field of civil engineering. Her advisory roles with various academic institutions further signify her commitment to mentoring the next generation of engineers. She is also a member the West Virginia Board of Registration for Professional Engineers. With a blend of technical skill and leadership, Carol Stevens continues to make significant strides in the field of structural engineering.

PROFESSIONAL LICENSURE:

WV, VA, PA, MD, KY, OH

Carol A. Stevens, PE, F.ASCE

Chief Engineer



EDUCATION

West Virginia University, BSCE, 1984
Chi Epsilon National Civil Engineering Honorary
The Pennsylvania State University, ME Eng Sci, 1989

PROFESSIONAL REGISTRATION

P.E.	1990	Pennsylvania
P.E.	1991	West Virginia
P.E.	1994	Maryland
P.E.	2008	Ohio
P.E.	2010	Kentucky
P.E.	2013	Virginia

BACKGROUND SUMMARY

2025 – Present	Chief Engineer Arrow Structural Engineering
2001 – 2025	President, Structural Engineer CAS Structural Engineering, Inc.
1999 – 2001	Structural Engineer Clingenpeel/McBrayer & Assoc, Inc.
1996 – 1999	Transportation Department Manager Structural Engineer Chapman Technical Group, Inc.
1995 – 1996	Structural Engineer Alpha Associates, Inc.
1988 – 1995	Structural Department Manager Structural Engineer NuTec Design Associates, Inc.
1982 – 1988	Engineer AAI Corporation, Inc.

PROFESSIONAL ASSOCIATIONS

American Society of Civil Engineers
National Society of Professional Engineers
American Concrete Institute
American Institute of Steel Construction
West Virginia University Department of Civil and
Environmental Engineering Advisory Committee
West Virginia University Institute of Technology
Department of Civil Engineering Advisory Committee
West Virginia Board of Registration for Professional
Engineers

EXPERIENCE

West Virginia, Odd Fellows Structural Repairs:

Structural evaluation report and construction documents for repairs to foundations and slabs for historic building located in downtown Charleston, WV.

West Virginia, Great Escape Theater:

Investigation and evaluations report followed by preparation of construction documents for foundation and concrete slab stabilization for existing move theater structure.

West Virginia, General Services Division Building 25:

Investigation of office building in Fairmont, WV with moisture infiltration and potential pyrites below basement slab. Basement floor was heaved in several locations and pyrites are common in areas where there are coal seams.

West Virginia, State Capitol Complex, Main Capitol Building Exterior Façade Restoration:

Investigation and preparation of details for repairs to limestone and terra cotta exterior façade. Building is on the National Register of Historic Places and was constructed in the 1920's and 1930's.

West Virginia, Roane County Courthouse:

Structural analysis of existing floor framing for addition of new high-density file storage system on upper floor level.

West Virginia, Lewis County Courthouse:

Structural investigation for work required to update structure and apply for grant monies through WVCFIA.

West Virginia, Tucker County Courthouse: Structural investigation for work required to update structure and apply for grant monies through WVCFIA.

West Virginia, Boone County Courthouse: Structural analysis of existing floor framing for addition of high-density file storage systems at different locations.

West Virginia, Gilmer County Courthouse: Structural analysis of existing floor framing for addition of high-density file storage system on upper floor level.

ARROW'S TEAM



ASHBEE SYKES, P.E. S.E.

Senior Engineer

Originally from Kitty Hawk, North Carolina, Ashbee brings a deep understanding of construction and structures to his work as a structural engineer. His background working with a family construction business provided hands-on experience ranging from framing houses to engineering multimillion-dollar projects, informing his approach to the intricacies and impact of design decisions. Inspired by his early days as a carpenter, Ashbee's journey led him to West Virginia. A graduate of West Virginia University with degrees in Mechanical and Aerospace Engineering, Ashbee is currently advancing his expertise in Structural Engineering at The Citadel. As a licensed Professional Engineer since 2019, he's committed to delivering excellence in every project.



ALEX YODER

Junior Engineer

From working in his father's wood shop to building storage sheds and remodeling houses, a passion for design and construction eventually led Alex to pursue a B.S. in civil engineering with a focus on structures from Bucknell University in Lewisburg, PA.



PHILLIP BAILEY, P.E.

Project Engineer

With a background in civil engineering and construction management, Phillip brings practical experience and academic knowledge to our projects. Phillip holds B.S. in Civil Engineering from West Virginia University, and has a background in construction management working for Yates Construction on the WVU Medicine Children's Hospital. Having worked on significant projects like WVU Medicine Children's Hospital, Phillip is well-prepared to lead complex building and design endeavors. As a licensed Engineering Intern in West Virginia, he's committed to delivering top-notch results. Phillip is a member of West Virginia University's Chi Epsilon Honorary Academic Fraternity.



ZACHARY HOWELL

CAD TECHNICIAN

As Arrow's sole CAD Technician, Zachary plays a vital role in the team. His expertise in engineering technology and design enables him to create both 2D and 3D designs, ensuring Arrow produces top-quality plans for superior structures. Beyond design, Zachary also assists with field work, measuring structures and conducting assessments. His attention to detail makes him an essential part of the team. Zachary received AutoDesk Certification from the Virtual Design Construction Institute, further validating his skills in CAD.



John Cole, PE
Project Manager

EDUCATION

- BS, Civil Engineering Technology, Fairmont State College, 2001

REGISTRATION

- Professional Engineer: WV, 2008 (#017949); also in MD, VA, GA & OH

YEARS OF EXPERIENCE

- 25

John has been actively involved in the planning, design, and construction of West Virginia's infrastructure projects for more than 25 years, providing industry leadership through addressing the region's infrastructure needs. His responsibilities include full project delivery including feasibility studies, design, construction plans and specifications, cost estimating, and construction administration inspection and engineering. He serves as the QA/QC Manager for annual term contracts and stand-alone projects related to site design, water, and sewer services. John will perform formal quality control reviews during each phase and at the conclusion where he will provide assurance for all deliverables prepared by our firm as well as work prepared by our subconsultants. He will confirm that all contract plans, reports, specifications, and engineering calculations are reviewed and meet RK&K's QA/QC plan.

PROJECT EXPERIENCE

George Mason High School, Falls Church, VA: Project Manager. Responsible for overseeing the design of on-site sewer pumping station serving the new school.

Frankfort Public Service District | Northern Mineral County Regional Sewer System, Phase 1 Wastewater Treatment Plant, Mineral County, WV: Project Manager. Responsible for overseeing the design and construction of a new regional sewer project consisting of a new 1.2 MGD WWTP, 62 miles of sewer collection and 14 sewage pump stations constructed in multiple phases.

Frankfort Public Service District | Water System Improvements, Mineral County, WV: Project Manager. Responsible for overseeing the design and construction of rehabilitation efforts to the existing 22-yr old water treatment plant; constructing 35,000 LF of new water mains; construction of a new 152,000 gallon water storage tank; rehabilitation efforts to an existing 160,000 gallon water storage tank; and development of a new ground water source.

Mineral Fabrication | Frito Lay Distribution Warehouse, Fort Ashby Industrial Park, Mineral County, WV: Project Manager. Responsible for the planning and design of a new 10,000 SF distribution facility including civil/site, utilities, and permitting.

New Creek Water Association | Water System Improvements, Mineral County, WV: Project Manager. Overseeing the study and design of approximately 9.5 miles of water main replacement, construction of a 319,000 gallon water storage tank, and new and rehabilitation efforts on several booster stations.

Town of Oakland | Water and Sewer Improvements, Garrett County, MD: Project Manager. Responsible for the design of various sewer line replacements, I&I flow monitoring and smoke testing, and the installation of a bar screen at the Town's main pump station upstream of the wastewater treatment plant. The project included preparation of both a Preliminary Engineering Report (PER) and Environmental Report (ER) for submission to USDA Rural Utility Service (RUS) for funding.

Town of Wardensville | Wastewater Collection System and Wastewater Treatment Plant, Wardensville, WV: Project Manager. Responsible for overseeing the preparation of a preliminary engineering report identifying the feasibility and probable costs for addressing various improvements throughout the Town's sewer system, overseeing the design of improvements to the wastewater treatment plant, work associated with conducting an I/I study of the collection system, improvements/replacement to the Town's sewage pumping stations. Assisting the Town with securing the necessary project funding.



Jeff Stanislawczyk, PE

Site Development / Permitting

EDUCATION

- BS, Civil Engineering, West Virginia University, 1996

REGISTRATION

- Professional Engineer: WV, 2005 (#016395)

YEARS OF EXPERIENCE

- 29

Jeff joined RK&K in 2016, following a 19-year career with the WVDOH where he served as Design Engineer, Project Designer, Project Engineer and Inspector on numerous highway and bridge projects. His wide range of transportation experience includes asset management, pavement preservation, environmental permitting, traffic impact studies, hydraulic analysis, innovative contracting and project delivery methods, bridge preservation. Jeff manages technical aspects of transportation projects through the planning, design, construction and maintenance phases.

PROJECT EXPERIENCE

Town of Lonaconing | Town Hall Building, Town of Lonaconing, MD: Project Engineer. Assisted with finalizing the design of the Town Hall building. The building design included

site design work, utility modifications, erosion and sediment controls, and state/county permit applications and approvals for the project.

Mountain Laurel Medical Center, Town of Grantsville, MD: Project Engineer. Finalized the design of the site plan for Mountain Laurel Medical Center. The building design included: site design work, erosion and sediment controls, hydraulic analysis, utility work, and state/county permit applications and approvals for the project.

Whisner Tire Center, LLC, Town of Fort Ashby, WV: Project Engineer. Currently working on finalizing the design of the Tire shredding facility building. The building design included site design work, utility modifications, erosion and sediment controls, and state/county permit applications and approvals for the project.

Frito Lay Distribution Warehouse, Town of Fort Ashby, WV: Project Engineer. Currently working on the design and layout of the Warehouse/Distribution facility building. The building design includes site design work, utility plans, erosion and sediment controls, and state/county permit applications and approvals for the project.

Frankfort Public Service District | Water System Project - Fort Ashby Water Treatment Plant Upgrades, Mineral County, WV: Project Engineer. Assisted with the inspection of surface preparation and interior/exterior coating of 160,000-gallon tank. Also aided with revisions to project specifications dealing with tank painting.

WVDOH | Traffic Engineering Services Roadway Departure Assessment: Project Engineer. Provided evaluation and recommendations of safety enhancements of 226 miles of roadway in five counties on various routes. Simultaneously designed over 24 miles of excavation and cable barrier installation along both Interstate 68 and 79.

Town of Wardensville | Parking Facility, Town of Wardensville, WV: Project Engineer for design and development of a parking facility for the town. Project includes developing plans for bidding along with site design work, erosion and sediment controls, and state/county permit applications and approvals for the project.



Tom Caldwell

Site Development / Utility Coordination

EDUCATION

- BS, Interdisciplinary Studies
- AS, Applied Science

REGISTRATION

- Engineering Technologist, Level V, WVDOT #1526

YEARS OF EXPERIENCE

- 33

Tom brings 33 years of experience in engineering inspection, supervision, and project/construction management. Specializing in roadway construction, utility coordination, and water and wastewater systems, Tom has a proven track record of leading complex utility relocation and coordination efforts on major transportation projects. His extensive background includes utility and railroad coordination for the WVDOH District Five office from 2009-2024, where he supervised numerous projects and assisted in design-build initiatives. Tom continues to drive innovation in utility coordination and project management, ensuring compliance with regulatory standards and the successful completion of high-profile infrastructure projects.

PROJECT EXPERIENCE

WVDOH | WV Route 9 and County Routes 1, 9/21 & 9/30 Roundabout, Martinsburg, WV: Tom serves as utility coordinator for the preparation of contract plans and related documents for the design of intersection improvements at County Route (CR) 1 (Harlan Springs Road), CR 9/21 (Stribling Road) and CR 9/30 (GM Access Road) to West Virginia Route (WV) 9 near mile post 10.38. The improvements consist of a four-leg roundabout at CR 1 and CR 9/21, and the addition of dual left turn lanes on CR 9/30. Traffic will be maintained on WV 9, CR 1, CR 9/21 and CR 9/30 during the construction. RK&K will supplement the traffic data provided by the Department as required. The project also includes the preparation and submission of a Traffic and Safety Analysis.

WVDOH | WV 9 Schoolhouse Drive I/S Improvement, Berkeley County, WV: Tom serves as utility coordinator for WV 9 at milepost 6.53 and is approximately 0.2 mile long. The project includes the intersection of WV 9 and County Route (CR) 9/33 (Schoolhouse Drive). This project shall consist of the preparation of contract plans for the construction of intersection improvements at WV 9 and CR 9/33.

Keyser | Sidewalk Improvements, Keyser, WV: Tom serves as utility coordinator for the evaluation and rehabilitation of segments of the existing sidewalk system. RK&K has been engaged to provide professional engineering design services for this project, which aims to replace approximately 1,650 feet of 10-foot-wide sidewalks along both sides of North Main Street between West Piedmont Street and Armstrong Street.

Prior to RK&K

WVDOH | District Five Utility Supervisor, Multiple Locations, WV: Tom served as supervisor for utilities section for seven counties, overseeing both office and field staff. His primary responsibilities included reviewing and approving plans and permit applications for utility companies, acting as the main liaison for various utility services, and coordinating inspections and utility relocation work on construction and maintenance projects. Additionally, he administered agreements between utilities, railroads, and WVDOH, ensuring compliance with state codes. He interacted with other state agencies, reviewed traffic control plans, and handled citizen complaints. He played a key role in updating the WVDOH Utility Manual, developing the Permit Portal and E-Permitting system, and organizing meetings with utility companies to discuss upcoming projects and potential impacts. His role involved reviewing, auditing, and approving invoices for reimbursement payments, ensuring efficient and smooth operations within the Utilities Section.

WVDOH | District Five Finals Supervisor, Multiple Locations, WV: Tom served as supervisor for construction and resurfacing projects, verifying the location, measurement, quantity, quality, and progress of work. He ensured that all work was accurately documented and in compliance with governing specifications and contract documents. Tom verified the method of measurement, accuracy of calculations, and computations used to establish pay quantities, ensuring that only work performed and accepted according to the specifications was included for payment. Additionally, he trained personnel in proper documentation and inspection practices and developed a system for tracking construction and resurfacing projects from award date to final payment. Tom's comprehensive oversight and management ensured smooth and efficient operations within the District Five Finals Section.



Montum





Mineral County Commission Facility Renovations and Additions

Description of Project:

The Mineral County Commission operates three primary buildings at the Courthouse Complex which are the Courthouse, the Judicial Annex, and Sheriff Building. Additional office space is provided via a second-story addition to the Sheriff Building with elevator access. The Courthouse gains a security checkpoint vestibule, egress stair, and elevator access to all three existing floors. The Judicial Annex improvements include the fitout of the existing second floor, an addition of a security checkpoint vestibule, egress stair, and elevator. The project includes fire alarm and sprinkler system installations for code compliance. The existing courthouse and annex structures are under the purview of the State Historic Preservation Office. Section 106 approvals were gained before construction began.

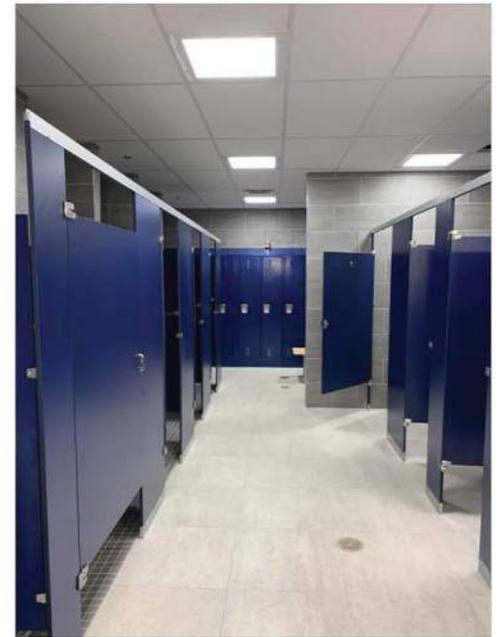
Construction Cost
\$8.5 Million

Project Size
40,000 SF Existing
10,500 SF New

Project Location
Keyser, WV

Construction Completion
Spring 2025

Contact
Luke McKinzie
County Coordinator
304-788-5921



WVANG Bridgeport FWAATS Restroom Renovations

Description of Project:

In Partnership with Miller Engineering, Montum Architecture helped prepare renovated floor plans for two locker / shower rooms and two restrooms. The goal was to renovate the spaces to meet ADA guidelines and improve efficiency and utilization of the areas. As well as, choose appropriate finishes that bring these spaces into the modern era. The flooring on the first floor was also replaced under this project. MEI designed renovations to the plumbing, lighting, fire alarm, fire protection, electrical, and VAC systems to accommodate the changes to the floor plans. The existing boiler was replaced with two, high efficient, modulating boilers. The owner was pleased with the chosen finishes and plans to use these as a standard going forward.

Construction Cost
\$1M

Project Size
1,400SF Renovated

Project Location
Bridgeport, WV

Construction Completion
May 2023

Contact
Jim Skaggs
WV ANG
(304) 561-6550



Short Gap Volunteer Fire Department Renovation & Addition

Description of Project:

Short Gap Volunteer Fire Department contracted Montum Architecture to design a single-story addition to the apparatus bay and a two-story addition to the social hall/ office/ crew quarter portion of the building. The addition includes a 20-foot expansion to the front of the building that houses: additional apparatus storage space, restrooms, stair reconfiguration, replacement gear storage space, laundry, and replacement of garage doors.

Construction Cost

\$ 782,800

Project Size

3,200 SF Addition

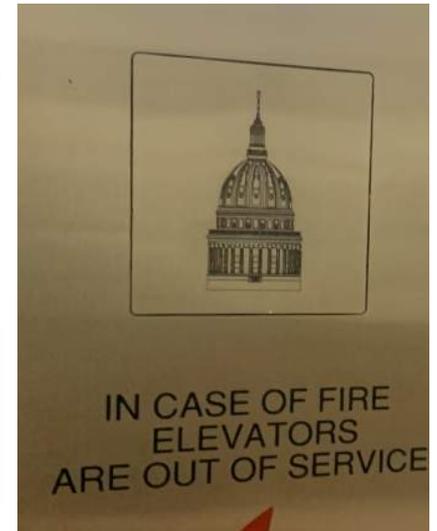
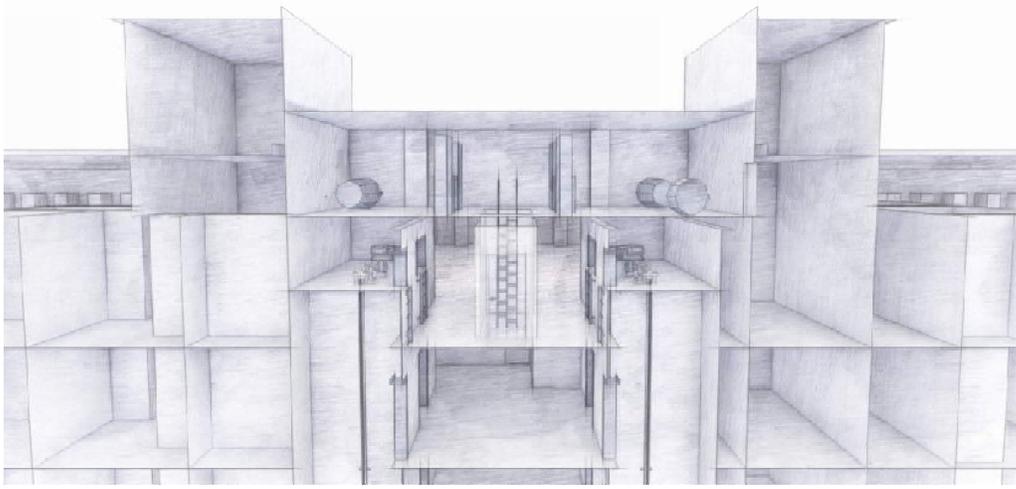
Project Location

Ridgeley, WV

Construction Completion

Spring 2020

Contact



West Virginia General Services Division Various Elevator Modernizations

Description of Project:

Miller Engineering, Richard Kennedy & Associates, and Montum Architecture partnered for the project. They were tasked with evaluating 31 current elevator systems and developed modernizations for each in a three-phase project method. Modernizing the machine rooms and bringing the systems into compliance with as few or no deviations as possible is a key aspect in the scope of service. To ensure that State decision-makers better understand the findings, the team created a full report including discussions, projections, suggestions, an executive summary, and an elevator system "primer". Phase I included seven elevators at the West Virginia Capitol Building, two at WV Building 7, and two at WV Building 25. Work at the Capitol Campus was reviewed and approved by the Capitol Building Commission, including historic restoration and complimentary aesthetics in the WV Capitol Building. Phases 1 & 2 are currently in construction.

Construction Cost
\$20M

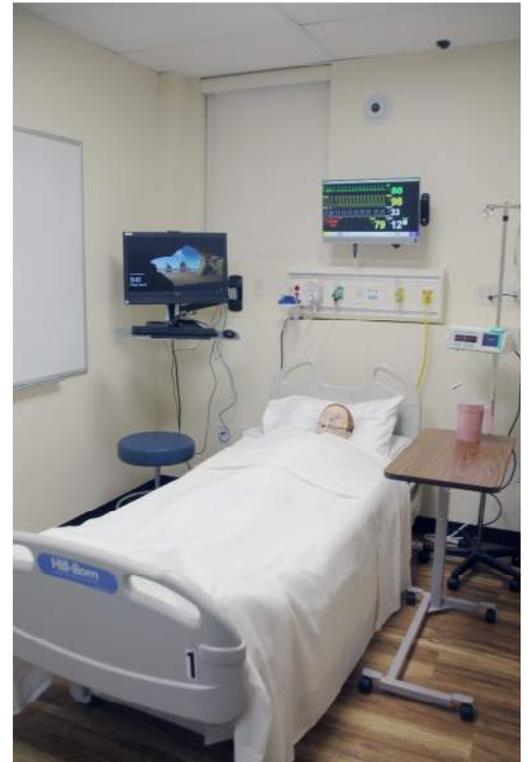
Project Size
N/A

Project Location
Charleston, WV

Construction Completion
In Construction

Contact
Pat O'Neill
Project Manager
WV General Services Division
112 California Ave
Charleston, WV
304-957-7133
Patrick.s.oneill@wv.gov

POTOMAC STATE COLLEGE BACHELORS IN SCIENCE OF NURSING RENOVATION



West Virginia University - Potomac State College received the former National Guard Armory in 2016. In addition to recreational facilities, the newly named J. Edward Kelley Center will house the 4-year WVU School of Nursing BSN program. The project converted former meeting spaces into demonstration nursing laboratories and lecture spaces. Office spaces were renovated. Electrical and HVAC systems were updated to meet the new needs.

COMPLETED: 2018

BUDGET: NOT DISCLOSED

SIZE: 3,900 SF RENOVATED

LOCATION: KEYSER, WV

CONTACT:
Mike Simpson
Director of Facilities
304-788-6886



Montum Architecture, LLC

37 ER Path, Keyser, WV 26726 ● 304-276-7151 ● tom@montumarch.com ● montumarch.com

Project Experience: MEP

Cacapon Lodge Addition & Renovation

Services Provided:

- Electrical
- Plumbing
- HVAC
- Fire Alarm
- Fire Protection
- Pool

Estimated Budget: \$26M

Facility Area: 113,000 sq ft

Owner: WV Department of Natural Resources



Miller Engineering teamed with Paradigm Architecture to design the addition to the lodge at Cacapon State Park. The addition includes approximately 80 guest rooms, new kitchen and dining areas, a spa, indoor pool, and support spaces. The boiler system was replaced with new efficient modulating boilers and a chiller was added.

New chilled and hot water piping was installed to allow for simultaneous heating and cooling of the lodge. The electric service was upgraded with a new main electric room in the addition with distribution panels throughout. All lighting was replaced with efficient LED fixtures. The fire protection system was upgraded and extended to the new addition.

Project Contact:

*Bradley S. Leslie, PE, Assistant Chief
WVDNR State Parks Section
(304) 558-2764 ext. 51826*

Descriptions of Past Projects Completed – Fire Protection

Camp Dawson FMS4 Fire Protection

Kingwood, WV

Services Provided:

- Fire Protection

Budget: \$130K

Facility Area: 7,400 sq ft

Owner: WVARNG



FMS4 is a vehicle and equipment repair facility located on the Camp Dawson Army National Guard base located near Kingwood, WV. The 7,400 square foot facility includes 4,800 square feet of high bay service area, with the remaining area dedicated to office space, storage, and locker rooms. The facility contains bulk storage of oil and other equipment fluids, requiring fire protection. MEI was tasked with designing a fire protection system which would provide adequate coverage of FMS4 and meet applicable codes. Through research of NFPA 30 and NFPA 13, MEI was able to determine the size of the service and coverage requirements. MEI determined that by providing separation of the bulk storage from the rest of the facility, the fire protection service requirements could be reduced, eliminating a water service upgrade by the utility. Montum Architecture was brought on board to provide architectural support in regards to the separation of the bulk storage room and for the construction of the sprinkler room. The project was successfully completed in December 2019, one month ahead of schedule.

Project Contact:

Jim Skaggs

WV ARNG

(304) 561-6550

Descriptions of Past Projects Completed – MEP

Morgantown High School Boiler Replacement/ Area 4 HVAC Renovation

Services Provided:

- Mechanical
- Electrical
- Plumbing
- Fire Alarm

Estimated Budget: \$1.0M

Contract Amount: \$1.038M

**Owner: Monongalia County Board of
Education**

Status: Complete



Project Contact:
Robert Ashcraft
Monongalia County Facilities Ret
Phone: (304) 363-3282

Morgantown High school, like others throughout the state, has seen many changes through the years. Unfortunately the steam boiler plant remained in operation but with little maintenance for a number of years. The 40 year old boilers had exceeded their operational life and were experiencing reliability issues. MEI Evaluated the boilers and the associated 80 year old steam systems, recommending their replacement. Steam heating control was a significant issue.

Previous projects installed split DX refrigerant based systems in several classrooms within the science and technology wing. These units were obsolete and required replacement with a more reliable system, which can meet current ventilation standards. Additionally, there were 3 classrooms, which were heating only with little or no controls that required additions to the overall solution for this section of the building. Based on the conditions of the steam systems piping and devices, new hot water boilers were installed.

This project was completed in late 2017.

Descriptions of Past Projects Completed – New Construction

WVANG Challenge Academy Maclin Hall MAU Replacement

Montgomery, WV

Services Provided:

- Mechanical
- Electrical
- General Trades

Construction Cost: \$496K

Owner: WVANG



MEI was tasked with replacing two failing make-up air (MAU) units at Maclin Hall. The units provide ventilation air for the facility. The MAU replacement involved installing new rooftop mounting curbs and replacement on rooftop mounted ductwork. New exhaust fans were installed on the roof and tied to the existing exhaust / relief air systems. New electrical feeds were installed to the new MAUs and fans. Montum Architecture assisted with the addition of rooftop railing to improve worker safety and the replacement of roof hatches and access ladders. The project was completed in January 2024 with no disruption to Challenge Academy operations.

Project Contact:

Jim Skaggs

WV ANG

(304) 561-6550



SAMUEL, SON & CO.

PITTSBURGH, PA

PROJECT TYPE:
Light Industrial

PROJECT SUMMARY

This project demonstrated Arrow's structural engineering expertise through the design of an 85,000-square-foot industrial crane facility developed by Chapman Properties, recipient of the 2025 NAIOP Pittsburgh Award. Focused on strength, precision, and long-term performance, the structure was engineered to support intensive industrial operations while accommodating integrated office functions within the same building footprint.

At the core of the facility is a robust concrete slab foundation, designed to resist heavy concentrated loads and dynamic forces generated by the building's bridge crane system and high-load cantilever shelving. The slab's design required careful consideration of load paths, reinforcement detailing, and subgrade performance to ensure durability and crack control under repetitive service conditions.

The building's primary framing system was engineered to achieve both flexibility and endurance—capable of supporting significant crane loads, large open spans, and vertical storage systems without compromising stability. Coordination with the architect and mechanical trades ensured that the structure could accommodate the precise clearances and service demands of the industrial equipment, while maintaining efficiency in fabrication and erection.



Chapman Westport

PITTSBURGH, PA

PROJECT TYPE:
Light Industrial

PROJECT SUMMARY

This 108,000-square-foot tilt-up warehouse known as Building 300 was developed by Chapman Properties as part of the park's continued expansion of a 300-acre Class-A industrial park development. Following the successful completion of Buildings 100 and 200, the new facility was designed to provide flexible tenant space that supports a range of industrial and distribution uses.

Arrow's scope centered on an innovative structural design that married safety with the need for quick-construction. These standards were necessary to all project development goals. Our team performed multiple iterations of the tilt-up wall panels, roof framing, and foundation systems to refine load paths, minimize material use, and accommodate a fast construction schedule.

Using Arrow's integrated project delivery approach for tilt-up construction, panel shop drawings were incorporated directly into the contract documents, streamlining coordination, reducing review time, and minimizing questions related to panel design intent during construction.

The completed structure features One-Dek composite roof decking, integrated steel joist detailing, and a tilt-up concrete envelope, delivering a durable and adaptable building that fits seamlessly within Chapman Westport's broader master plan for industrial growth.



BRIDGEPORT FIRE DEPARTMENT

BRIDGEPORT, WV

PROJECT TYPE:

Municipal / Residential

PROJECT SUMMARY

This project showcased Arrow's ability to blend functionality, resilience, and visual impact through the structural design of a new fire department facility in Bridgeport, West Virginia. Designed to meet the demanding operational needs of first responders, the facility was engineered using a robust combination of masonry bearing walls, cast-in-place concrete slabs, and a meticulously designed steel framing system. Together, these components provided a durable structural solution capable of withstanding both the test of time and the rigors of emergency services operations.

A standout feature of this project was the incorporation of exposed structural steel roof trusses. These trusses were not only engineered to deliver the necessary roof support and load transfer but were also designed with visual expression in mind. Finished in a striking firehouse red, they created a bold architectural statement that complements the utilitarian materials throughout the building. By leaving these trusses exposed, the design celebrates the strength and precision of the structure itself—bringing engineering into the spotlight as a visible and integral design element.

From concept through construction, our team collaborated closely with architects and contractors to ensure seamless integration of aesthetics and performance. The result is a civic facility that is as structurally sound as it is visually iconic—serving both the community's emergency response needs and the city's architectural landscape.



ANNA JARVIS ELEMENTARY SCHOOL

GRAFTON, WV

PROJECT TYPE:
Primary Education

PROJECT SUMMARY

The project involves the construction of a two-story building on the site of the existing Anna Jarvis Elementary School, spanning approximately 60,000 square feet. The building's structural design relies on reinforced masonry bearing walls and a steel-framed roof, providing a solid foundation for the overall structure. To streamline the design process, we utilized a comprehensive structural modeling software, integrating all elements of the project—from the foundational support to the roof system—into one cohesive model.

A critical aspect of this project was the intricate coordination required to ensure seamless integration between the structural framework, architectural elements, civil site work, and the building's utilities. This included precise coordination with the mechanical, electrical, and plumbing (MEP) systems, as well as the fire suppression system, to ensure that all components fit within the building's design constraints without compromising structural integrity or functionality.

Frito Lay Distribution Warehouse | Fort Ashby, WV

This project consists of a 10,000 square foot warehouse/distribution facility within a total footprint area of 1.75 acres. The site is situated on an approximate 3.35 acre tract in an Industrial Park. The topography is such that the site is situated approximately six feet above an existing cul-de-sac with existing utilities available on site.

The operation is a combination warehouse and distribution facility that operates 24-hrs a day. Tractor trailers will deliver product to stock the warehouse while route delivery vans will be stationed on site to routinely deliver goods to customers within the area. The site work included optimizing the site to accommodate WB-67 tractor trailers to maneuver for deliveries to the warehouse as well as parking for 10 route vans that ultimately are loaded for distribution.

Initial observations as well as additional survey of the site produced a surface model revealing the differing elevations between the site pad and the cul-de-sac. This made site planning a bit of a challenge due to driveway slope restrictions required by the client. In turn, with the utilization of SiteOps programming RK&K was able to situate the site within the existing tract of land, meet all necessary requirements, and balance the site with minimum waste.

From the survey, existing utilities were identified and utilized to accommodate service to the building. Parking facilities were incorporated to maintain safe traffic pattern flows, necessary ADA facilities, and safe pedestrian access to the building. Sediment and Erosion Control along with stormwater management is currently being addressed to permit the site. Water quantity and quality will be maintained and controlled throughout the site. Access permits will be obtained along with proper permitting. Additional planning and consideration will be included to accommodate future growth.



CLIENT CONTACT

Mineral Fabrication & Machine Co.,
Inc.

John Hale

304.788.5855

- *Site Development*
- *Utility Planning*
- *Erosion and Sediment Control*
- *Permitting*
- *SiteOPS®*
- *Environmental Assessment*

Tucker County Industrial Park | Tucker County, WV

The Tucker County Development Authority retained RK&K for Task Based Services for assistance with development of the Tucker County Industrial Park.

Task 2: RK&K's services included survey of the existing Industrial Park to determine property boundaries, existing features, and location of existing utilities. RK&K's services have also included mapping of the existing property for use in marketing and planning efforts.

Task 3: RK&K's services included wetland delineation of the Industrial Park property to determine buildable vs non-buildable areas and to naturally divide the park into two development phases.

Task 4: Site development engineering and SITEOPS will be completed to design a multi-tenant building and to assist developers with the design of adequate building sites within the park. In addition, funding assistance and market analysis is being provided.

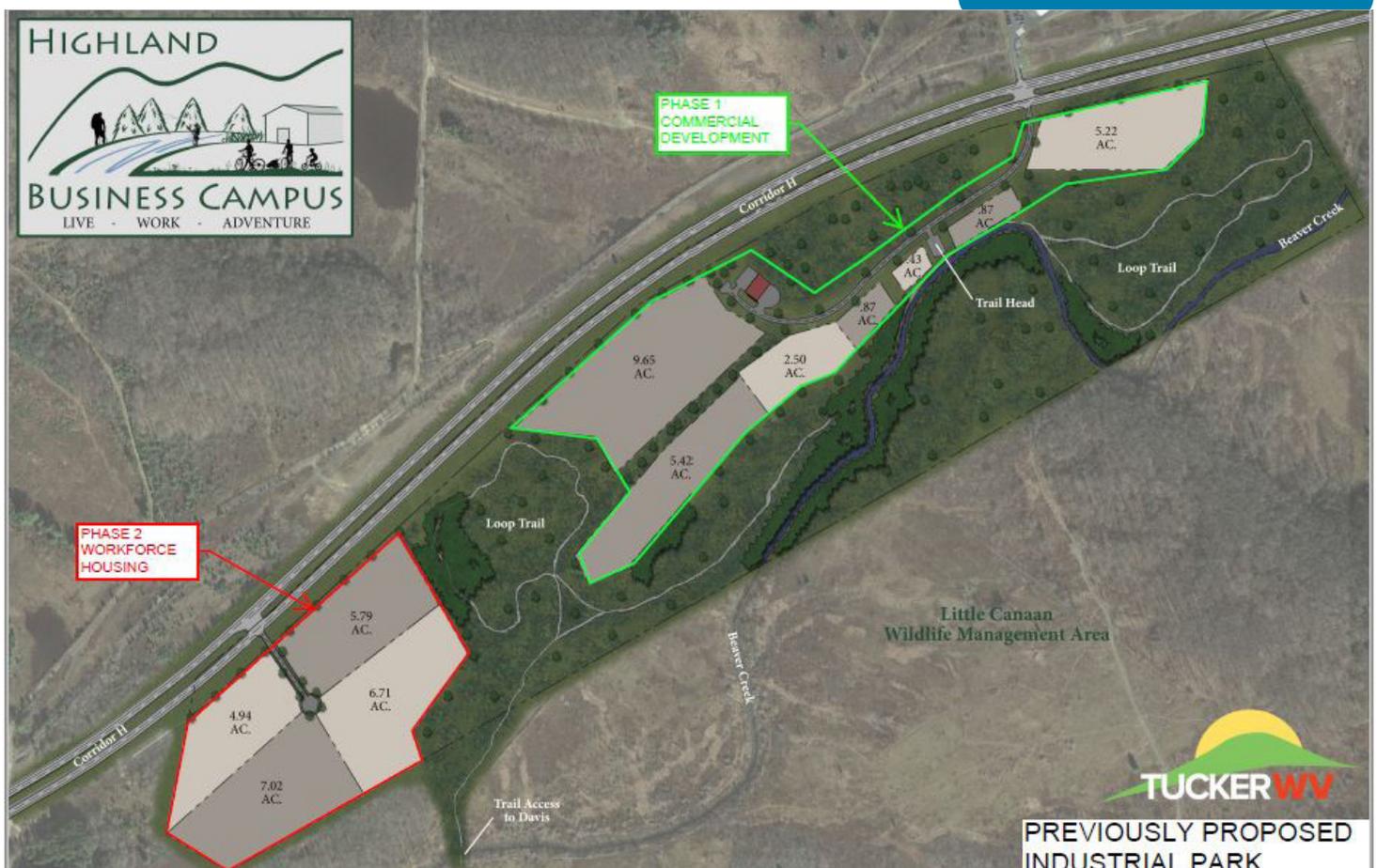
CLIENT CONTACT

Tucker County

Steve Leyh

304.614.8839

- **Site Development**
- **Utility Planning**
- **Erosion and Sediment Control**
- **Permitting**
- **SiteOPS®**
- **Environmental Assessment**



Whisner Tire Center, Fort Ashby Industrial Park | Fort Ashby, WV

This project consisted of a 7,500 square foot facility situated on an approximate three acre tract in an Industrial Park. The tract is situated within an existing cul-de-sac with existing utilities on site. The operation is a tire shredding process that is contained within the building.

The site work includes optimizing the site to accommodate WB-67 tractor trailers to maneuver for delivery and parking while shredding operation takes place. After shredding process is completed tractor trailers will be loaded at loading docks for distribution. Initial survey was conducted to obtain current topography as well as locating any existing utilities. Existing utilities identified are being utilized to accommodate service to the building. Parking facilities along with lighting for the lot was incorporated to maintain safe traffic pattern flows along with safe pedestrian access to the building.

Sediment and Erosion Control along with stormwater management was considered and included to obtain proper permitting for the site. Water quantity along with water quality was maintained and controlled throughout the site. Access to existing roads was obtained along with proper permitting from state authorities. The site was graded to balance cuts and fills so that waste was minimized. Additional planning consideration was included to accommodate future growth and expansion.



CLIENT CONTACT

Whisner Tire, LLC

Jerry Whisner

304.813.4576

- *Site Development*
- *Utility Planning*
- *Erosion and Sediment Control*
- *Permitting*
- *SiteOPS®*
- *Environmental Assessment*

McCoole Little League Ball Field | McCoole, MD

The McCoole Little League Ball Field project enhances recreational opportunities for local youth by constructing a Little League-sized baseball field, a walking track, and facilities for maintenance and concessions, along with a dedicated parking area. RK&K refined existing plans, ensuring compliance with local regulations and best practices while tailoring the designs to meet the specific site requirements.

RK&K prepared a comprehensive site plan that included preliminary grading and erosion and sediment control measures, reflecting a commitment to sustainable environmental management. Additionally, a stormwater management plan was developed and submitted to Allegheny County for permit approval, incorporating strategies to mitigate environmental impacts. The project also involved a thorough survey of existing utilities and topographic features, ensuring seamless integration of the new facilities with the existing infrastructure. This approach underscores RK&K's dedication to delivering high-quality engineering and construction management services.

CLIENT CONTACT

Allegheny County Department of
Public Works

Siera Wigfield

304.334.7477

- *Stormwater Management*
- *Utility Planning*
- *Erosion and Sediment Control*
- *Permitting*
- *Survey*
- *Environmental Assessment*

South Branch Community and Technical Center | Grant, WV

RK&K's involvement in this project included a range of services such as site/civil design, stormwater management, and environmental assessments. RK&K employed a multidisciplinary approach, leveraging the expertise of its diverse team to ensure that all aspects of the project were executed efficiently and effectively. This included conducting on-site utility investigations to support the design and construction phases.

Additionally, RK&K facilitated the stormwater permitting process, ensuring compliance with local and state regulations. Our construction management team was instrumental in coordinating with stakeholders during construction activities to minimize disruptions to project progress.

The team maintained open lines of communication with all parties involved, making sure that the project adhered to timelines and budget constraints while meeting the highest standards of quality.

CLIENT CONTACT

William Shriver Architects

Ted Shriver

304.335.1060

- *Stormwater Management*
- *Stakeholder Involvement*
- *Construction Management*
- *Permitting*

Frankfort Primary School, Short Gap, WV

The Frankfort Primary School project, located in Short Gap, West Virginia, is a vital initiative aimed at enhancing the educational infrastructure in the region through the consolidation of three separate schools (Fort Ashby Primary School, Frankfort Intermediate School and Wiley Ford Primary School) into a single building constructed adjacent to the existing Frankfort Middle School. The overall enhancement also consolidates all the schools within the northern end of Mineral County (Frankfort District) into the Frankfort School District Complex that consists of the new Primary School, Middle School, High School, Football Stadium, along with various sports facilities (baseball, soccer, softball, cross-country).

RK&K provided a comprehensive survey of existing utilities and topographic features for this project along with coordination efforts with the local water and sewer providers.

CLIENT CONTACT

ZMM Architects

304.342.0159

- *Survey*
- *Utilities*





A GPRS Case Study

GPRS ENSURES SAFE EXCAVATION OF LEAKING UTILITY LINE



HIGHLIGHTS

THE BOTTOM LINE

GPRS provided accurate data on the utilities inside a buried pipe that had been used as a utility tunnel at a power substation to assist with the repair of an unknown leaking utility.

TASK

Locate all utilities in and around a buried concrete or asbestos pipe, and investigate a possible void near these lines, to assist with the safe repair of a leaking utility.

PROBLEM

- A petroleum and natural gas electrical power station had a suspected leaking utility line that they believed was also causing a void
- The leaking utility was encased in a concrete or asbestos pipe, which also contained several other utilities that had all been buried for over 40 years
- There was no way to access this utility pipe, which sits under a newer steel building on the property

SOLUTION

- GPRS deployed ground penetrating radar and electromagnetic locating to map the utilities in and around the buried pipe
- The Project Manager also identified the likely location of the leaking utility, which aligned with data the client acquired with a thermal imaging gun
- GPRS went beyond the original project scope and located expansion joints along the buried utility tunnel
- In addition to marking out located utilities with spray paint on the asphalt, the data was uploaded into SiteMap®

BENEFITS

- The client was able to avoid destructive and potentially dangerous exploratory potholing to find the leaking utility line
- The accurate, actionable data obtained by GPRS will expedite the repair process by ensuring they only need to dig once
- All stakeholders have 24/7, secure access to this field-verified data thanks to SiteMap®, which is available via computer, tablet, or smartphone



A GPRS Case Study

GPRS ENSURES SAFE SOIL BORING IN PENNSYLVANIA



HIGHLIGHTS

THE BOTTOM LINE

GPRS deployed multiple forms of subsurface investigation technology to mitigate the risk of utility strikes during a soil boring project.

LOCATION

Mercer, Pennsylvania

TASK

Locate and map utilities to clear the planned locations of 19 soil borings.

PROBLEM

- The client needed to take soil borings at 19 locations across 130 acres of wooded, hilly environment as part of their construction planning
- They needed to know there were no buried utilities near these locations – striking one could derail the project's schedule and budget, cause service interruptions to nearby residents, and endanger workers
- The dense undergrowth and uneven terrain made locating utilities in the area exceptionally challenging

SOLUTION

- GPRS deployed two Project Managers who used electromagnetic (EM) locating in conjunction with their GPR scanners to verify the location of utilities around the soil boring locations
- The Project Managers completed their work in five hours on site
- The accurate, field-verified data GPRS collected was uploaded into SiteMap® (patent pending), GPRS' infrastructure mapping software application

BENEFITS

- The client had the accurate infrastructure data they needed to conduct their soil borings safely and without risk of subsurface damage
- GPRS' ability to rapidly deploy two Project Managers to the project ensured the client could stay on time, on budget, and safe
- Located & mapped utility data available generally within minutes of job completion thanks to SiteMap



A GPRS Case Study

NATIONWIDE RETAILER PARTNERS WITH GPRS FOR EXISTING CONDITION SEWER ASSESSMENT



HIGHLIGHTS

THE BOTTOM LINE

GPRS was able to help the client visualize their entire sewer infrastructure on over 700 locations, nationwide. On this project in particular, our customer needed to find a non-destructive and unobtrusive way to get details on their sewer system. They needed this to address several issues they were having with water infiltration to their store that was causing electrical damage in their facilities basement.

INDUSTRY

Retail

SERVICE

Video Pipe Inspection, Utility Locating, Concrete Scanning, 3D Photogrammetry

LOCATION

Missouri

PROJECT APPLICATION

This nationwide retail customer needed to accurately assess the storm and sewer systems of over 700 of their store locations across the United States. A nationwide cctv sewer inspection provider was necessary for consistency and final reports. GPRS performed utility locating, video pipe inspection, 3D Photogrammetry to create a comprehensive map and 2D CAD drawing of the facilities sewer system. This aided in engineers properly being able to assess the property and manage their underground infrastructure.

TASK

Locate, assess, and map the existing conditions of the sewer and storm lines within the building and around the property of a national retail companies' property, in the state of Missouri.

PROBLEM

- The client reported signs of water infiltration, including within the basement level of their store
- Electrical components within the store were being damaged from the intrusion of water from an unknown source
- Client needed a non-intrusive way to get information on their entire sewer/storm system on site, for their engineers to assess next steps in remediation

SOLUTION

- GPRS located, mapped, and assessed the existing conditions of the property's internal and external sewer/storm lines utilizing multiple forms of technology; providing necessary information to the engineering team
- The client was also able to identify and easily view all external sewer/storm line details including the existing conditions of the pipes inspected, in a NASSCO-certified Report
- 99.8+% accurate field verified GPS-enabled CAD utility sitemaps in PDF, KMZ, and .SHP file formats were provided via SiteMap[®], GPRS' cloud based infrastructure visualization software, so the client had a single source of truth for their project results.

BENEFITS

- Client was able to find a non-intrusive way to get details on possible solutions for the issues they were currently facing at this store.
- Easy and accurate reports saved them time and money, and the potential need to have plumbers come out to the store multiple times to address the same issues.
- GPRS provides complimentary digital and NASSCO-certified video reporting, including depths where available, and can export your sewer data into a wide variety of drawings, maps, and models that provide seamless communication and collaboration on any project.





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

State of West Virginia
 Centralized Expression of Interest
 Architect/Engr

Proc Folder: 1917106			Reason for Modification:
Doc Description: General Instruction Building Design- Camp Dawson			
Proc Type: Central Purchase Order			
Date Issued	Solicitation Closes	Solicitation No	Version
2026-03-02	2026-03-17 13:30	CEOI 0603 ADJ2600000006	1

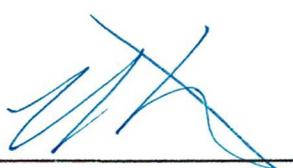
BID RECEIVING LOCATION

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

VENDOR

Vendor Customer Code: VS0000013207
Vendor Name : Montum Architecture, LLC
Address : 55
Street : ER Path
City : Keyser
State : West Virginia **Country :** USA **Zip :** 26726
Principal Contact : Thomas Pritts, AIA
Vendor Contact Phone: 304-276-7151 **Extension:**

FOR INFORMATION CONTACT THE BUYER
 David H Pauline
 304-558-0067
 david.h.pauline@wv.gov

Vendor Signature X  **FEIN#** 82-1385831 **DATE** March 17, 2026

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.

(Printed Name and Title) Thomas Pritts, Member

(Address) 55 ER Path, Keyser, WV 26726

(Phone Number) / (Fax Number) 304-276-7151

(email address) tom@montumarch.com

CERTIFICATION AND SIGNATURE: By signing below, or submitting documentation through wvOASIS, I certify that: I have reviewed this Solicitation/Contract 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/Contract 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 this bid or offer was made without prior understanding, agreement, or connection with any entity submitting a bid or offer for the same material, supplies, equipment or services; that this bid or offer is in all respects fair and without collusion or fraud; that this Contract is accepted or entered into without any prior understanding, agreement, or connection to any other entity that could be considered a violation of law; 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.

By signing below, I further certify that I understand this Contract is subject to the provisions of West Virginia Code § 5A-3-62, which automatically voids certain contract clauses that violate State law; and that pursuant to W. Va. Code 5A-3-63, the entity entering into this contract is prohibited from engaging in a boycott against Israel.

MontumArchitecture, LLC

(Company)

(Signature of Authorized Representative)

Thomas Pritts, Member

(Printed Name and Title of Authorized Representative) (Date)

304-276-7151

(Phone Number) (Fax Number)

tom@montumarch.com

(Email Address)