



Expression of Interest
West Virginia State University – Davis Fine Arts Center
Institute, WV
AEOI WVSU2400000001
March 05, 2024



West Virginia State University
5000 Fairlawn Avenue
Ferrell Hall Room 301
Institute, WV 25112

Table of Contents

A Letter from Our Owner

TAB 1:	Firm Qualifications Miller Engineering, Inc. Firm Profile Craig Miller, PE Travis Taylor, PE Tyler Trump Jack Jamison Montum Architecture Tom Pritts, AIA Jordyn Henigin CAS Structural Engineering Carol Stevens, PE Certifications and Degrees Applicable to This Project
TAB 2:	Project Organization Staffing Plan Organization Chart
TAB 3:	Experience Morgantown High School Area 4 Cacapon Lodge Addition & Renovation Alderson Broaddus Withers Brandon Hall South Middle School Blackwater Falls Lodge Camp Dawson FMS4 Mineral County Facilities Waxler Warehouse Wyoming County Schools Robinson Grand Theatre Sharpe Hospital Similar Projects Budget Delivery History Similar Projects Deadline Delivery History References
TAB 4:	Methodology Project Approach & Methodology



TAB 5: Project Forms
Signed EOI Forms

The Miller Engineering Difference



We are very pleased to submit our response for the West Virginia State University Davis Fine Arts Center Project. We have elected to submit as prime as our understanding from the Expression of Interest is that the project is focused on MEP upgrades including HVAC, electric, and fire protection. MEI has successfully delivered many projects of this scale and scope as the prime consultant for many state agencies and the private sector across the entirety of the state.

We're not your typical MEP firm; we ensure our designs meet very specific, time-tested criteria, including but not limited to being constructible, operable and maintainable. We want to set up our clients to be self-sufficient, but we work to be available every step of the way.

Most every renovation we do requires a phased approach to keep the facility in operation. We routinely deliver phased renovations for educational, institutional, commercial, and government facilities. Every project we do has a particular set of standards which we must apply, and this is no exception. We see our diversity of previous work as an advantage as we do not use "cookie cutter" design or presume we have all the answers when we start.

Our hands-on staff takes great pride in their construction and operations backgrounds, which help us visualize the project as it would be built instead of just lines on paper. We don't sit clients down and lecture to them about what they're going to get; we listen to them so we can strive to deliver exactly what they want and need. It costs too much time and money (for both our clients and us) to not deliver exceptional service every single time, and we work tirelessly to keep projects on time and on budget. We're proud to say that our change order percentage over the last 15 years is less than 0.1%, and that's not just a statistic; it's a proclamation of our commitment and determination to make sure things are done right the first time, every time.

Although MEI's portfolio spans nearly every type of construction, our particular focus is on renovation. MEI has an extensive record of many MEP renovation projects as both a prime and sub consultant. We were the prime consultant for several recent MEP renovation projects for WV General Services, WV Division of Natural Resources, WV Army National Guard, and Monongalia County Schools. Most of these projects required the facility being renovated to remain in operation. MEI tailored the designs to allow for the Owner to maintain some form of operation, and MEI's focus on construction administration ensured the construction remained on schedule. Serving as the prime consultant, MEI is competent in understanding the West Virginia Purchasing bidding and procurement requirements. As the EO lists roof replacement, and many HVAC renovations involve some general floor plan or construction modifications, MEI has decided to bring Montum Architecture as a sub-consultant. Montum and MEI have paired as a design team many times successfully on such projects. Montum has also acted as a prime consultant on many successful roof replacement projects including Wyoming County Schools. CAS Structural Engineering, based in Alum Creek, will provide structural consulting as necessary.

We encourage you to contact any of our references to gauge our level of commitment, not only through design but continuing through construction administration, and beyond the warranty period.

I would like to personally thank you for affording Miller Engineering the opportunity to propose on the West Virginia State University Davis Fine Arts Center Project and we look forward to the chance to discuss the project in an interview.

Best Regards and Good Luck on the Project,

A handwritten signature in blue ink, appearing to read 'Craig Miller', with a stylized, cursive script.

Craig Miller, PE
President/Owner
Miller Engineering, Inc.



TAB 1 –FIRM QUALIFICATIONS





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





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
- Cacapon Lodge Addition & Renovations
- Dominion Post Greer Building – HVAC and Electrical Upgrades
- Morgantown Metropolitan Theatre
- WV Building 25 – HVAC, Elevator, & Lighting Renovations
- Blackwater Falls Lodge Renovations & Boiler Replacements
- South Middle School HVAC 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

- Alderson Broaddus University Withers Brandon Hall HVAC Upgrades
- Morgantown High School Area 4 HVAC Renovations
- Camp Dawson FMS4 Fire Protection
- Pipestem State Park McKeever Lodge – HVAC, Piping, & Fire Alarm Renovations
- WVANG Bridgeport FWAATS Locker Room Renovations
- Hawks Nest Lodge Renovations
- Blackwater Falls Lodge Renovations
- Mineral County Judicial Annex, Courthouse & Detention Center – MEP Renovations

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 Replacement

Professional History

2022- Present Miller Engineering, Inc. MEP Designer

Education

2022 West Virginia University, BS - Mechanical Engineering

Licenses and Certifications

Staff – Qualifications and Experience



Jack Jamison

Jack brings 20 years as an electrical/building inspector and over 25 years of experience in the commercial electrical construction industry. His knowledge and experience are valuable resources to Miller’s complete assessment process.

Project Role: Master Code Official

- *Facility Review, Code Research, Field Observations, Issue Resolutions, and Project Evaluation*

Professional History

2010- Present	Miller Engineering, Inc.	Code and Construction Specialist
1999-2010	Megco Inspections	Chief Inspector
1972-1998	Jamison Electrical Construction	Master Electrician

Education

1971 Fairmont State College, BS-Engineering Technology-Electronics

Licenses and Certifications

- Master Code Professional, IAEL Master Electrical Inspector, Class C Electrical Inspector – WV, PA, MD, & OH
- ICC Commercial Building, Building Plans, Commercial Plumbing, Residential Energy, and Accessibility Inspector/Examiner
- WV Master Electricians License
- NCPCCI-2B, 2C, 4B, 4C: Electrical & Mechanical General/Plan Review
- OSHA 30 Hour Course: General Industry
- NFPA Code Making Panel 14 – NEC 2014 Edition



Firm Profile

Who We Are.

Montum Architecture, LLC was founded in 2017 to provide architectural design services to clients in West Virginia and western Maryland. Staff includes one licensed principal architect along with a design professional to form the team, and they work together to handle projects, come up with ideas, and ensure quality. This allows the utmost coordination of building plans and specifications with minimal potential for miscommunication.

What We Do.

The firm has designed and constructed facilities for our clients across the state of West Virginia and western Maryland. We pride ourselves in a diverse range of project types including; Higher Education, K-12 Schools, Financial Institutions, Automotive Dealerships, Medical, Institutional, Government, Historical, Multi-Dwelling Residential, Single Family Homes.

Our Services

Montum Architecture has years of experience in both new design and structure renovation. Our personnel is experienced in both the private and public sectors and is educated in a variety of project execution strategies, including the traditional design/bid/build to full design/build with partnering. We are versed in a wide range of services including; planning, architectural design, building assessment, specification writing, contract administration, and bidding/construction administration.

Why Choose Us.

Legal Organization

Montum Architecture is a Limited Liability Corporation initially filed in the State of West Virginia. The company is also registered in the State of Maryland as a foreign LLC.

Communication

Tom Pritts will be the primary point of contact for Montum's architectural services. Montum will manage communications with sub-consultants on this project.

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 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 modeling and parametric reporting. We also utilize LiDAR to gather further information for 3D modeling.

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 20 years of experience in design, specification, and project management. During his former employment, 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, emergency services buildings, 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 in his previous employment.

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
------	---------------	---------------------------

Licenses and Certifications

- Licensed Architect (West Virginia, Maryland)
- NCARB Certificate
- Construction Specifier Institute – Certified Construction Specifier
- LEED-AP Certified
- Part 107 Remote Pilot
- 30-hour OSHA Card

Associations and Memberships

- American Institute of Architects
- Mineral County Chamber of Commerce – former First Vice-President

Professional Project Highlights

- Mineral County Detention Center, Courthouse, and Annex Additions and Renovations, Keyser, WV
- WVGSD Elevator Modernizations, Charleston and Parkersburg, WV
- WVGSD Chiller Plant Annex, Charleston, WV
- Potomac State College – Bachelor of Nursing Renovation, Keyser, WV
- Wyoming East High School HVAC Renovation – Wyoming County Schools, WV
- Westside High School HVAC and Roof Renovation – Wyoming County Schools, WV
- Career and Technical Center Door and Window Replacement – Wyoming County Schools, WV
- Wyoming County Central Office – Wyoming County Schools, WV

Montum



Professional Project Highlights

- Bean's Lane Farm Labor Housing, Moorefield, WV
- Berkeley Springs State Park – Pool Bathhouse Roof Replacement
- Berkeley Springs State Park – Old Roman Bath Renovation
- Blackwater Falls State Park – Boiler Room Renovation
- Cass Campground, Cass WV
- Lost River Campground, Mathias, WV
- Watters Smith State Park Pavilion, Lost Creek, WV
- Greenbrier SF Headquarters, White Sulphur Springs, WV
- Plum Orchard WMA Maintenance Building, Scarbro, WV
- Mon Co Schools Transportation Addition, Morgantown, WV
- Jackson Co ARFC Wash Bay, Millwood, WV
- FWAATS Lockerroom and Bathroom Renovations, Bridgeport, WV
- WVANG USPFO Lockerroom and Bathroom Renovations, Buckhannon, WV
- BUMFS Staggers Recovery Office and Bathrooms, Burlington, WV
- BUMFS Hope Meadows Facility, Burlington, WV
- BUMFS Mill Meadow Life Safety, Keyser, WV
- BUMFS Maintenance Building and Exercise Addition Life Safety, Keyser, WV
- Aging & Family Services of Mineral County - Keyser Senior Center, Keyser, WV
- Aging & Family Services of Mineral County – Office Addition, Keyser, WV
- RISE – REACT, Cumberland, MD
- New Covenant UMC, Cumberland MD
- Our Lady of the Mountains Parish – Bathroom Renovation, Cumberland, MD
- Mountain View Assembly of God – Rec Hall Ceiling Design
- Larenim Park Amphitheater, Burlington WV
- Building 25 HVAC & Lighting Projects, Parkersburg WV
- Ed Kelley Memorial, Keyser WV
- Waxler Warehouse Renovations, Keyser WV
- Waxler Warehouse Fire Pump Replacement, Keyser, WV



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 perusing 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
---------------	---------------------	---------------------

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
- New Covenant UMC, Cumberland MD
- 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

Carol A. Stevens, PE, F.ASCE

Structural 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

2001 – Present 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

EXPERIENCE

West Virginia, WVU Woodburn Hall: Structural repairs to clock tower of 1870's building on Downtown Campus at WVU. Clock tower was moved from Martin Hall in 1910. Building is on the National Register of Historic Places.

West Virginia, WVU Martin Hall: Structural repairs to wooden octagonal cupola of 1870 building, the first building constructed at Woodburn Circle at WVU. Building is on the National Register of Historic Places.

West Virginia, Marshall University Morrow Library: Performed evaluation of existing structural floor system and developed options to upgrade system.

West Virginia, West Virginia State University Phase II Housing: Designed foundations and roof framing for new university housing unit.

West Virginia, Sharpe Hospital HVAC Renovations: Designed framing for piping enclosures, tank and generator foundations, cooling tower foundations, steel structure support and other miscellaneous support designs and analyses for complete redesign of HVAC systems in existing facility.

West Virginia, Robinson Grand Theatre Restoration: Completed analysis and design for complete restorations of historic theatre. Project also included design of large two-story addition for dressing rooms and conference space. Another two-story addition included a stair tower and electrical rooms. Both additions were supported on deep foundations and grade beams with structural slabs. Building is on the National Register of Historic Places.

West Virginia, Logan Middle: Structural analysis for HVAC upgrades.

West Virginia, Western Greenbrier Middle School: Structural analysis for HVAC upgrades.

West Virginia, Logan High School: Structural analysis for HVAC upgrades.

West Virginia, Smoot Elementary School: Structural analysis for HVAC upgrades.

West Virginia, Chamberlain Elementary School: Structural analysis for HVAC upgrades.

West Virginia, Hamlin PK-8 School: Structural analysis for HVAC upgrades.

West Virginia, Mabscott Elementary School: Structural analysis for HVAC upgrades.

West Virginia, Maxwell Hill Elementary School: Structural analysis for HVAC upgrades.

West Virginia, Shady Spring Middle School: Structural analysis for HVAC upgrades.

West Virginia, Independence Middle School: Structural analysis for HVAC upgrades.

West Virginia, Geary Elementary School: Structural design for modifications for new safe school entry.

West Virginia, Duval PK-8 School: Evaluation of structural elements of school for repairs or replacement.

West Virginia, Elkins High School: Structural evaluation report.

West Virginia, Chapmanville Primary School: Structural analysis for HVAC upgrades.

West Virginia, Mountain View Elementary HVAC: Structural analysis for HVAC upgrades.

West Virginia, Mabscott Elementary School: Structural analysis for HVAC upgrades.

West Virginia, Maxwell Hill Elementary School: Structural analysis for HVAC upgrades.

West Virginia, Independence Middle School: Structural analysis for HVAC upgrades.

West Virginia, George Washington High School: Structural design of additions including 3-story classroom addition, new commons area and auxiliary gymnasium.

West Virginia, Sissonville High School: Structural design of auxiliary gymnasium for Kanawha County Schools.

West Virginia, Herbert Hoover High School: Structural design of new gymnasium for Kanawha County Schools.

West Virginia, Nitro High School: Structural design of new gymnasium for Kanawha County Schools.

West Virginia, South Charleston High School: Structural design of new gymnasium for Kanawha County Schools.

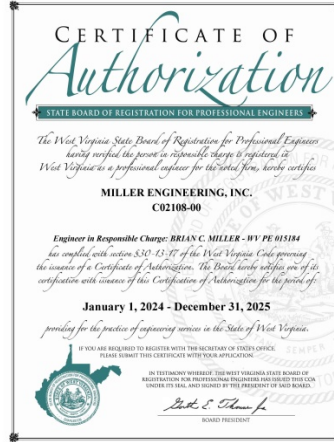
West Virginia, Logan Elementary School: Repairs to roof structure from wind damage.

West Virginia, Spencer Middle School: Structural design of new middle school.

West Virginia, Pendleton County MS/HS: Structural analysis for HVAC upgrades.

West Virginia, Chapmanville Middle School: Structural analysis for HVAC upgrades.

Staff – Licenses & Certifications





TAB 2 – PROJECT ORGANIZATON



MILLER ENGINEERING

<u>Craig Miller, PE</u>	President, Principal in Charge
<u>Travis Taylor, PE</u>	Lead MEP Engineer
<u>Tyler Trump</u>	MEP Designer
<u>Jack Jamison</u>	Master Code Official

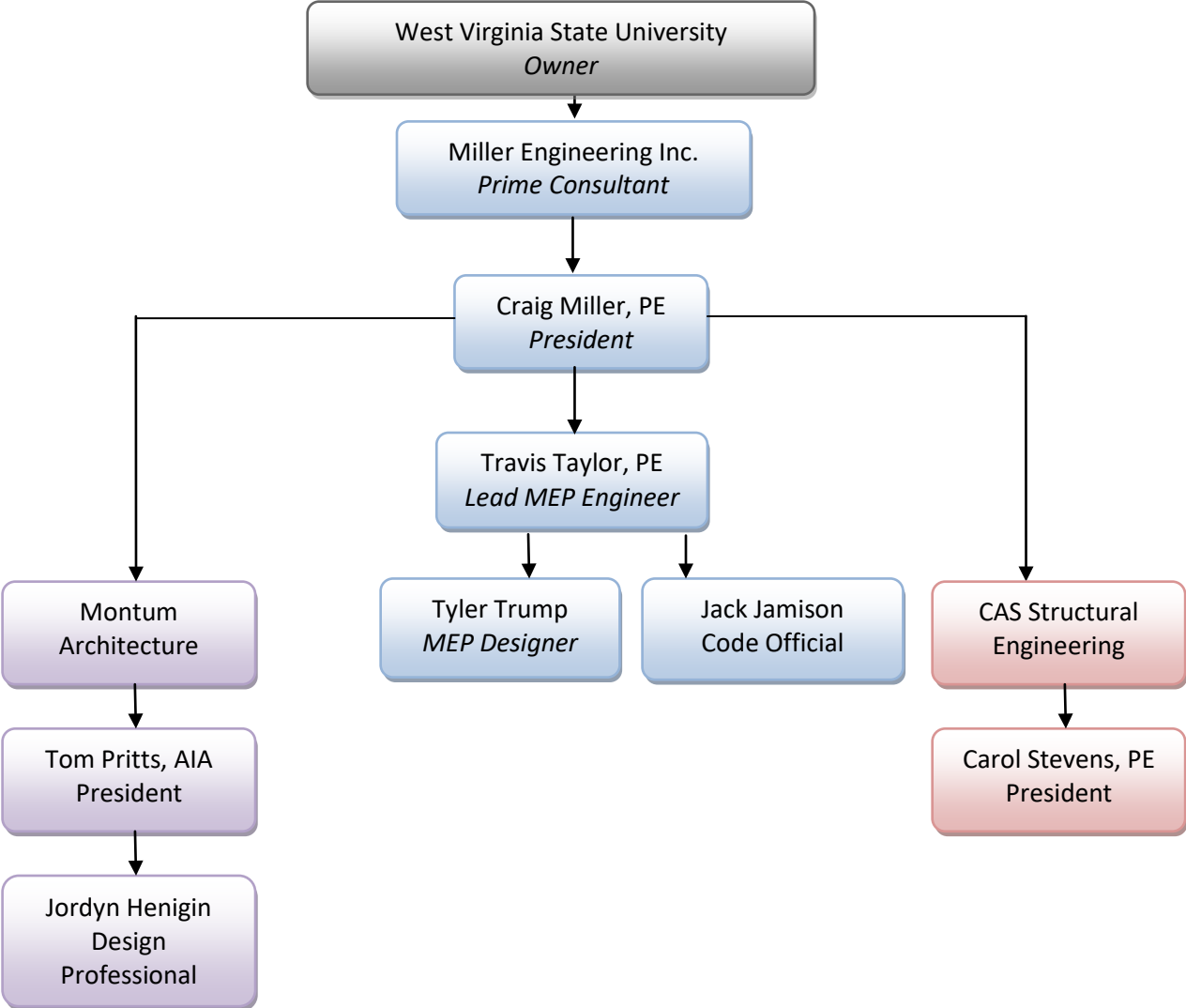
MONTUM ARCHITECTURE

<u>Tom Pritts, AIA</u>	Architect, Owner
<u>Jordyn Henigin</u>	Design Professional

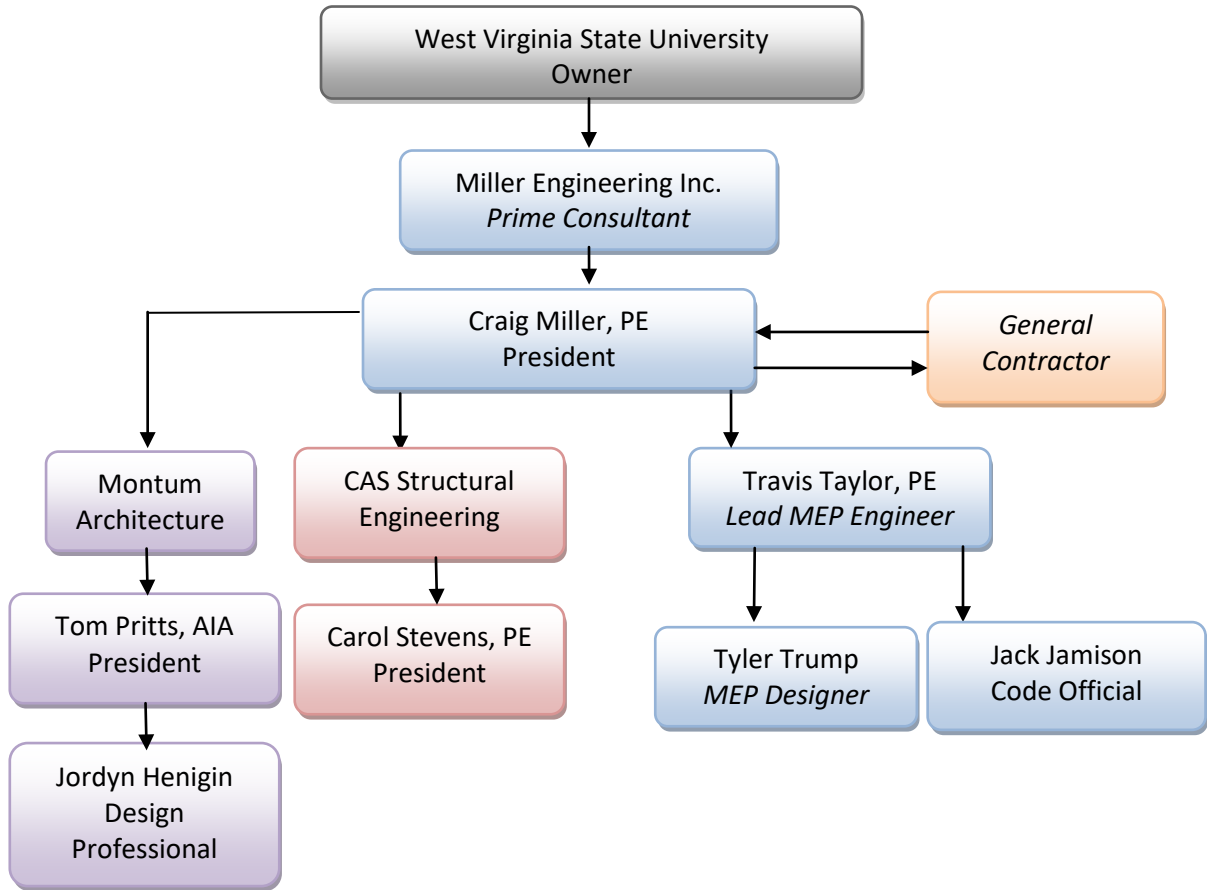
CAS STRUCTURAL ENGINEERING

<u>Carol Stevens, PE</u>	President, Owner
--------------------------	------------------

Organization Chart -Design



Organization Chart – Construction



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
Phone: (304) 291-9210

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.

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 – HVAC, Electric

Withers Brandon Hall

Philippi, WV

Services Provided:

- Electrical
- HVAC

MEP Budget: \$700k

Facility Area: 31,800 ft²

Owner: Alderson Broaddus
University

Status: In Construction



As part of renovations to Withers Brandon Hall at Alderson Broaddus University, MEI was brought in to evaluate and design upgrades to the HVAC system. The existing chiller and piping insulation had failed. The existing system was a two-pipe system with chiller and boilers serving fan coil units. MEI proposed to re-use the piping and replace the fan coil units with water source heat pumps (WSHP). This allows the existing piping to be re-used and piping insulation would not have to be replaced. The chiller will be replaced with a fluid cooler located outside the building. The three non-condensing boilers will be replaced with a much more efficient modulating condensing "double stack" boiler. The ventilation units are located in the unconditioned attic space and are difficult to perform maintenance on. New ducted heat pumps tied to energy recovery ventilators will tie into the existing fresh air duct to provide ventilation and relief air. The design limits the amount of modifications outside of the mechanical rooms which will aid with the compressed construction schedule. The project was completed in October 2019.

Project Contact:
David Snider, AIA
Omni Associates, Inc
(304) 367-1417

Descriptions of Past Projects Completed – MEP

South Middle School HVAC Renovations

Services Provided:

- Mechanical
- Electrical
- Plumbing
- Fire Alarm

Contract Amount: \$1.45M

Facility Area: 111,800 ft²

Owner: Monongalia County Board of Education



South Middle School was served by a single DX AHU with various terminal devices such as VAV and self-piloted boxes. The school has been suffering from poor air quality and temperature control issues. Additionally, the condensing unit had failed. MEI designed a rebuild of the AHU; replacing the DX coils with HW and CW coils. The two large supply fans were replaced using a fan wall system which allowed the fans to operate at max output and minimize noise and vibration issues which plagued the old sled mounted fans. A new boiler serves the hot water coil and two chillers were installed with piping on the roof to serve the AHU cooling coil. The air terminal devices will be rebuilt and retrofitted to provide better control. A new Building Automation System (BAS) main control panel was installed which allowed control systems which were installed under other contracts to be incorporated to communicate under one system.

Project Contact:
Robert Ashcraft
Monongalia County Facilities
Phone: (304) 291-9210

Descriptions of Past Projects Completed – Renovation

Blackwater Falls State Park Lodge Renovations

Davis, WV

Services Provided:

- General Trades
- Plumbing
- Electrical
- Mechanical
- Pool

Const. Cost: \$4.6 Mil

Facility Area: 44,000 ft²

**Owner: West Virginia Division of
Natural Resources**



Project Contact:

Barrow Koslosky, AIA – Chief of PEM

WV DNR

Phone: (304) 558-2764

MEI was part of a design team with Paradigm Architecture to design the interior renovations to the lodge at Blackwater Falls State Park. All 54 lodge guestrooms were completely renovated with new finish, HVAC, and bathroom upgrades. Four of the guestrooms were modified to meet modern ADA guidelines. The lobbies, reception area, and dining rooms were upgraded with new HVAC, lighting, and finishes. The original finned tube radiant was replaced with new 4 pipe fan coil units and were tied into the boilers which were recently replaced by a previous MEI project.

A new chiller was installed with pumps and chilled water piping to the fan coil units. The guest rooms HVAC systems are fan coil units with ventilation served by make-up air units. Energy recovery ventilators pre-condition outside air to make the make-up air units operate more efficiently. The lodge was re-opened in January 2022.

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



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 fit out 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.

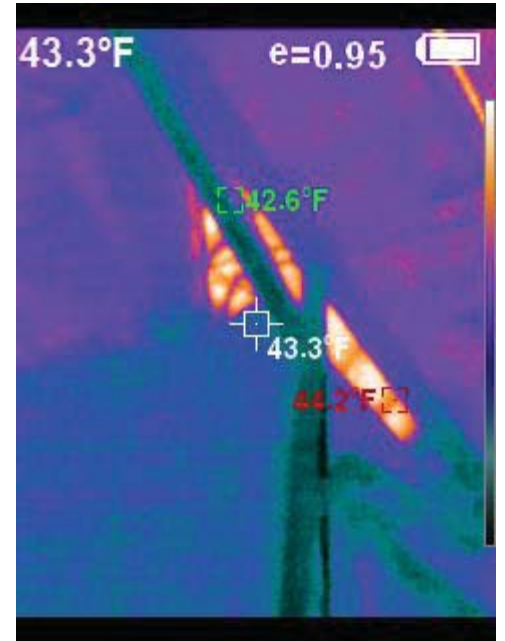
Construction Cost
\$8.5 Million

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



Mineral County Development Authority Waxler Warehouse Membrane Roofing Project

Description of Project:

The existing building is configured a 163,000 square foot original building and a 119,000 square foot existing addition. Both structures utilize trapezoidal-rib metal panels for roofing. Between these two structures, an EPDM (rubber) roofing section was installed to account for the differences in roof elevation. The project is generally to investigate the roof leaks in this EPDM area, report the findings, and develop bidding documents for repair/replacement. Work also includes providing bidding administration and construction administration services.

Construction Cost

\$ 94,600

Project Size

6,000 SF of Roof

Project Location

Keyser, WV

Construction Completion

In Construction

Contact

Kevin R. Clark
Executive Director
kclark@mineraleda.com
(304) 788-2233



Wyoming County Schools

Wyoming East High School & Westside High School HVAC & Roof Replacement

Description of Project:

The West Virginia School Building Authority funded replacement of the HVAC systems and roofing at the existing Wyoming East High School in 2017. The County received ARP ESSER funds through the West Virginia Department of Education for HVAC system upgrades at Westside High School in 2021. The County locally funded the replacement of the EPDM roofing in sequence with this HVAC project. Work was performed within a occupied buildings with close coordination of school daily schedules and calendar of events. Many of the units are being replaced one-for-one with some zones being split into multiple units to allow flexibility of new curriculum within the spaces or needs for additional comfort control. Ceilings are being replaced to meet updated guidelines for educational facility acoustics.

Construction Cost

\$3.2M & \$3.3M

Project Size

130,000 SF Existing, Each

Project Location

New Richmond, WV
Clear Fork, WV

Construction Completion

WEHS – Summer 2019
WES – Spring 2023

Contact

Robert Lyons
Director of Facilities
304-732-6262

ROBINSON GRAND THEATRE RESTORATION

Clarksburg, West Virginia



This early 1900's structure was devastated by fire and partially re-built in 1939. The front portion of the building was salvaged, and the rear of the auditorium and stagehouse were reconstructed. This structure is listed on the National Register of Historic

Additional framing and reinforcing of the existing structure was installed below the ballroom on the second floor to comply with current building codes.



The design included a large two-story addition to the side to provide dressing rooms for performers on the 1st floor and conference space on the 2nd floor. Additional structural modifications and additions were included for accessibility and egress.



SHARPE HOSPITAL HVAC RENOVATIONS

Weston, West Virginia



The project included design of framing for piping enclosures, fuel tank foundations, generator foundations, cooling tower foundations and steel structure support, and other miscellaneous support designs and analyses for complete redesign of HVAC systems in existing facility.



Budget and Timeline History

Project Name	Project Type	Budget	Cost	Notes
Bluestone State Park	Pool Replacement	\$1,000,000	\$935,600	On budget
West Virginia State	HVAC Piping Renovation	\$650,000	\$533,400	On budget
Canaan Valley Resort	Emergency Electrical Repairs	\$225,000	\$129,829	On budget
Holly Grove Manor	Renovation	\$885,000	N/A	On hold
Mapletown Jr/Sr High School	HVAC Renovation	\$1,050,000	\$1,105,900	5.19% over budget
Pipestem – McKeever Lodge	HVAC Piping Replacement	\$1,600,000	\$1,776,000	10.43% over budget
Tygart Lake State Park	Beach and Bathhouse	\$750,000	\$695,000	On budget

= Delivered on budget/on time

Budget and Timeline History

Project Name	Project Type	Contract Length	Contract Delivery	Notes
Blackwater Falls State Park	Boiler Replacement	120 days	180 days*	*Extended 60 days due to equipment delivery issues
Bluestone State Park	Pool Replacement	180 days	180 days	Delivered on time
Canaan Valley Resort	Construction Administration	3.5 years	3.5 years	Long-term project with varying facets – no direct schedule
Twin Falls/Hawks Nest Lodge	HVAC Renovation	90 days	90 days*	*Expedited delivery
Mapletown Jr/Sr High School	Boiler/ HVAC Renovation	180 days	180 days	Delivered on time
Pipestem – McKeever Lodge	HVAC Piping Replacement	365 days	365 days	Delivered on time
Tygart Lake State Park	Beach and Bathhouse	270 days	270 days	Delivered on time



What our satisfied customers have to say...

“Hard working, do-whatever-it-takes, diligent team that provides excellent customer service is what you can expect from Miller Engineering.”

--Chris Halterman, Dominion Post, Morgantown

“As a design/build team, working with Miller Engineering, our project involving a private surgical hospital together was a success – completed ahead of schedule and on budget. Miller worked with us throughout the project to consult, engineer and inspect the mechanical systems. Craig Miller, PE and his staff are working with us again, and are very important members of our design/build team. I highly recommend their services.

--Richard J. Briggs

<p>Roger Wolfe <i>Project Engineer</i> <i>WV Division of Natural Resources</i> <i>1000 Conference Center Drive</i> <i>Logan, WV 25601</i> (304) 885-6100 roger.c.wolfe@wv.gov</p>	<p>Jim Skaggs <i>Technical Analyst</i> <i>WVARNG – Division of Engineering & Facilities</i> <i>1707 Coonskin Dr.</i> <i>Charleston, WV 25311</i> 304-561-6550 Robert.a.skaggsii.nfg@army.mil</p>	<p>Cindy Fisher <i>Procurement Administrator</i> <i>WV Dept. Of Agriculture</i> (304) 558-2221 cfisher@wvda.us</p>
<p>Bob Ashcraft <i>Safety and Ancillary Projects</i> <i>Monongalia County Schools</i> <i>533 East Brockway Street</i> <i>Morgantown, WV 26501</i> (304) 657-4079</p>	<p>Dave Parsons <i>Energy Program Manager</i> <i>WV General Services</i> <i>112 California Avenue</i> <i>Building 4, 5th Floor</i> <i>Charleston, WV 25305</i> (304) 957-7122 David.K.Parsons@wv.gov</p>	<p>Richard J. Briggs <i>Vice President</i> <i>Lutz Briggs Schultz & Assoc. Inc.</i> <i>239 Country Club Drive</i> <i>Ellwood City, PA 16117-5007</i> (724) 651-4406 lbsa@zoominternet.net</p>

From Jonathan Miller, Mechanical Project Manager, Nitro Mechanical:

“Miller Engineering is not your average engineering company; they work with the owner AND the contractor to solve all issues that arise throughout the project to make the process as fluid as possible”



TAB 4 – METHODOLOGY & APPROACH



Project Methodology & Approach

Evaluation

Miller Engineering will begin the design process by reviewing all existing documentation related to the Davis Fine Arts Center. Reviewing documents will give MEI an initial understanding of the facilities which will be confirmed or adjusted through an extensive on site evaluation of the facilities. Montum Architecture will assist in evaluating the roof and building envelope. Included as part of the evaluation will be speaking with the Owner's staff including maintenance to gain a better understanding of issues related to the HVAC, fire protection, and electrical systems of the center. Evaluations of both existing documents and site visits will allow the design team to create initial building models. MEI will utilize building information modeling (BIM) via Autodesk REVIT to create models and therefore drawings of the facilities' areas of impact.

Schematic

Once the BIM models are accomplished, and MEI grasps the building systems intent and construction, MEI will meet with the owner. The meeting will involve all stakeholders to gain an understanding of the intended project outcomes. MEI will discuss items which will affect the renovation including changes in building usage, current deficiencies and issues, operating methods, operating costs, and construction timeline phasing. Montum's evaluation of the roof and envelope may provide an opportunity to better insulate the Davis Center and improve HVAC efficiency and reduce energy costs. Miller Engineering's staff has backgrounds in construction, maintenance, and operations which provide a unique perspective as we do not just think "Will it work?" but also consider "How will it be installed?" and "How well can it be maintained to work as intended?" A majority of MEI's past projects include renovations which must be phased as the owner still occupies the facility. MEI will work with the owner to determine the maximum amount of facilities can be taken out of service at one time and the duration of these outages. These ramifications, in addition to any occupancy disruptions anticipated, would be discussed with the owner. The initial schematic design thoughts and ideas will be shared with the Owner for input. Based upon the initial discussions, MEI will work with Montum to prepare initial construction estimates.

Design Development

Unless required by the Owner, MEI does not prescribe to issuing progress sets at predetermined intervals (30%, 50%, etc.), but rather to share progress documents with the Owner as the design hits specific milestones or reaches a point where the Owner should provide input. MEI will not wait until the next progress set to speak with the stakeholders if questions arise. Our philosophy is that the sooner issues are brought forward and addressed, the less they cost the project in time and money. MEI will coordinate any architectural or structural impacts that the HVAC, fire protection, and electrical upgrades have with Montum and CAS respectively. The estimate will also be updated regularly as MEI treats the estimate as a "living document." Any changes or inputs from the owner, as well as other changes made during proceeding with design development, will be reflected in the estimate. MEI believes in giving the owner the information necessary, including budgetary effects, to make informed



decisions regarding the design. The amount and timing of the progress sets vary upon interactions with the Owner, but MEI will seek to press forward to bidding documents in a timely manner.

Construction Documents

The construction documents will be completed using both the results of the progress set reviews and internal peer review. MEI understands that while working on a project, engineers and designers can get "tunnel vision", meaning they see what they want to see reflected in the documents. All drawings and specifications issued by Miller Engineering go through a three step peer review internally to ensure the intent of the document is clearly transmitted. The final 100% construction document set will be issued to the owner for bidding, along with our best estimate of probable cost.

Bidding

During bidding, Miller Engineering will assist the owner to successfully procure bids for the upgrades. MEI will be present during the pre-bid meeting to discuss the technical scope of work for the project. Any technical questions from contractors or vendors to the owner during bidding will be answered by MEI. MEI will provide addendum documents as needed. MEI will also assist in reviewing bids and making recommendations to the owner. We have completed many projects through WV State Purchasing, and understand the requirements to successfully bid a project with the state of West Virginia.

Construction Administration

After bids are received and the contract awarded, MEI is not a firm that disappears until the final punch list. MEI will provide thorough construction administration (CA) services as agreed upon with the owner. We will be present for a construction kick-off meeting to make sure the project gets off on the right foot. MEI believes in being present at construction progress meetings and making informal site visits to keep the project on track. Our background in construction and operations allows us to understand the sequencing of construction in the field to better aid the contractors when questions arise. One of MEI's main beliefs is that any requests for information (RFIs) submitted by the contractor should be reviewed and answered within one business day if possible. This is because we understand that delays in RFI responses can lead to additional costs and construction days. If necessary, we will provide an informal answer and follow up with the formal response to keep the project rolling. During progress meetings and site visits, any issues discovered by MEI will be relayed to the owner and contractor immediately to prevent delays. Another company standard is for our staff to be present for testing and balancing (TAB), equipment start-up, and owner training. While these events occur at the very end of the project, they are critical to ensure the new systems operate as designed. MEI will be on hand for these activities to quickly answer any questions and confirm these items are performed properly in accordance with the construction documents.



TAB 5 – PROJECT FORMS



SIGNATURE/CERTIFICATION

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



(Name, Title)

Craig Miller, PE - President

(Printed Name and Title)

54 West Run Rd. Morgantown, WV 26508

(Address)

(304) 291-2234

(Phone Number) / (Fax Number)

cmiller@millereng.net

(email address)

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

By signing below, I further certify that I understand the Commission/Institution is requiring the vendor to follow the provisions of WV State Code 5A-3-62 which automatically voids certain contract clauses that violate State law.

Miller Engineering, Inc.

(Company)



(Authorized Signature) (Representative Name, Title)

Craig Miller, PE - President

(Printed Name and Title of Authorized Representative)

4 March 2024

(Date)

(304) 291-2234

(Phone Number) (Fax Number)