



May 14, 2014

Ms. Tara Lyle, Senior Buyer
Department of Administration, Purchasing Division
2019 Washington Street, East
PO Box 50130
Charleston, West Virginia 25305-0130

Subject: EOI for Architectural and Engineering Services to Renovate the Heating, Ventilation, and Air Conditioning System at the Williamstown AASF1 Facility – DEFK14023

Dear Ms. Lyle:

ZMM Architects and Engineers is pleased to submit the attached information to demonstrate our experience and our qualifications to provide professional architectural and engineering services to renovate the Heating, Ventilation, and Air Conditioning System at the Williamstown AASF1 Facility. Established in 1959, ZMM is a Charleston based, full service A/E firm, and is noted for design excellence and client focus. As a full service design firm with a longstanding relationship serving the West Virginia Army National Guard, ZMM has the right combination of technical qualifications and HVAC renovation experience required to assist with this projects. Additionally, ZMM recently completed a space analysis of the Williamstown AASF1, giving our team an understanding of the existing building and building systems. We are confident that our team is the most qualified for the following reasons:

▪ **HVAC Renovation Experience.**

ZMM was founded more than fifty years ago as a full service design firm. One of the specialties that the firm provides is the design of new and renovated HVAC systems. One of our firm Principals, Bob Doeffinger, is a mechanical engineer with experience working on West Virginia Army National Guard facilities – including the Joint Interagency Training and Education Center at Camp Dawson. Mr. Doeffinger will lead a team of professionals including Steve Cook (Mechanical Engineer) and Nathan Spencer (Architect) on the project. Steve and Nathan have collaborated on a variety of WVARNG projects throughout West Virginia. Our approach to this project will involve utilizing a full service team as many HVAC modifications can impact other building systems (ceilings, life safety systems, etc.).

▪ **WVARNG Experience.**

The members of our proposed team have provided design and construction phase services on multiple West Virginia Army National Guard (WVARNG) projects including the JITEC, the Regional Training Institute at Camp Dawson, the Jackson County AFRC, and Kingwood AFRC, the Glen Jean AFRC, the CFMO Expansion, the Tackett Family Readiness Center, the Morgantown Readiness Center, and the Logan-Mingo Readiness Center. Additionally, our team has recent experience providing services at the Williamstown AASF1 for the WVARNG.

▪ **Wood County Design Experience.**

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West Virginia Purchasing Division

ZMM has a long history of providing design services in Wood County. Recent experience includes the Wood County Justice Center (LEED Certified), schematic design of the Parkersburg Readiness Center and Field Maintenance Shop, the Downtown Center and Activity Building for West Virginia University at Parkersburg, the Judge Donald F. Black Courthouse Annex, and the St. Sebastian Center for Parkersburg Catholic High School. Our knowledge of the local construction market will help ZMM ensure the project budget and schedule.

▪ **ZMM HVAC Renovation Project Approach.**

ZMM has investigated the existing building systems and the original design documents to develop a recommended approach for the project. This approach (found in Section 1) helps demonstrate our knowledge of the existing facility, and also outlines various systems available for the HVAC renovation. Our existing knowledge of the facility, as well as the investigation of various options for the renovation, will help expedite this project for the WVARNG.

Thank you for taking the time to review the attached expression of interest that includes information about our proposed methodology and approach for the project, as well as ZMM's qualifications and relevant project experience. Additionally, please visit our website at www.zmm.com to see the full range of renovation projects that we have designed. We appreciate your consideration for this important assignment.

Respectfully submitted,
ZMM, Inc.



Adam R. Krason, AIA, NCARB, LEED-AP
Principal

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Project Methodology and Approach

Renovation of the Heating, Ventilation, and Air Conditioning System - Williamstown AASF1 Facility

FACILITY BACKGROUND

The Williamstown Army Aviation Support Facility is a 47,500 SF facility located in Williamstown, WV. The Williamstown AASF supports the 104th AVN, 224th AVN S and S, DET 28 OSA, and the 834th DET units.

The dominant element of the AASF is a 38,000 SF hangar which houses HH-60L, UH-60L, OH-58A, and C-12U aircraft. The hangar has a long-span steel structure with no intermediate columns. The exterior is wrapped with insulated metal wall and roof panels. The hangar is heated only.

The remainder of the facility is a two-story masonry structure which houses offices, classrooms, flight operations, and aircraft maintenance shops. The exterior consists of a double wythe CMU wall with rigid insulation in the cavity. The bulk of the exterior finish is scored CMU with accent bands of split-face CMU. The roof construction has steel roof joists with metal roof decking, rigid insulation and membrane roofing. Locker rooms on the second floor, which were originally designed for heating only, have been converted to locker/sleeping rooms. These spaces should have both heating and cooling. There is also a limited amount of existing mechanical space, which will be a factor in determining the type of new HVAC system to use.



HVAC SYSTEM RENOVATION APPROACH (OPTIONS)

Option 1: The existing loop water and hot water piping could be re-used as well as most of the existing ductwork. All equipment would be replaced, including the heat pumps, H&V (Heating & Ventilating) units, heaters, infrared heaters in hangar, pumps, boiler and fluid cooler. All piping to be re-used should be inspected to ensure that it is re-usable. All ductwork to be re-used should be thoroughly cleaned. The building ventilation would also need to be reevaluated to ensure the proper amount of ventilation air is being brought into the building. Some modifications will also be required to add cooling to the locker room areas.

Option 2: The existing system could be replaced with a variable air volume (VAV) system with terminal units for individual zone control. One or more rooftop air handling units would distribute conditioned air throughout the building. A VAV terminal unit would be used for individual zone temperature control. This system could utilize dx cooling and either gas or hot water heating at the rooftop units. The terminal units

could utilize either electric or hot water reheat coils. The infrared heaters in the hangar would be replaced with new gas-fired infrared heaters.

Option 3: The existing system could be replaced with a variable refrigerant system (VRS). A VRS consists of a dx heat pump system which utilizes a separate indoor unit for each conditioned zone. Multiple indoor units are connected to a common outdoor condensing unit. In addition to the VRS, a dedicated outdoor air system (DOAS) would be required to condition the ventilation air required for the building. The infrared heaters in the hangar would be replaced with new gas-fired infrared heaters.



Option 2 would likely be ZMM's preferred choice with gas heat at the rooftop unit(s) and electric heat at the VAV boxes, however, that may change based on site conditions and WVARNG preferences.

History and Philosophy of ZMM



LOCATION:
222 Lee Street, West
Charleston, WV

CONTACT:
Phone 304.342.0159
Fax 304.345.8144
www.zmm.com

History



ZMM was founded in 1959 in Charleston, West Virginia by Ray Zando, Ken Martin, and Monty Milstead. Since the inception of the firm, ZMM has been dedicated to providing an integrated approach to building design for our clients. ZMM delivers this integrated approach by providing all building related design services, including architecture, engineering (civil, structural, mechanical, and electrical), interior design, and construction administration from our office in Charleston. Our integrated design approach makes ZMM unique among architectural firms in West Virginia, and helps to ensure the quality of our design solutions by providing more thoroughly coordinated construction documents.

Over the last decade, ZMM has become a leader in sustainable or 'green' design in West Virginia. In addition to participating in sustainable design and construction seminars throughout the State (Beckley, Fayette County, Morgantown, Charleston, and Parkersburg), ZMM designed one of the first sustainable educational facilities in West Virginia (Lincoln County High School). ZMM's unique design approach has proven invaluable on projects that employ sustainable design principles, which often require a more integrated approach to building design.

As ZMM enters our second half-century providing professional design services in West Virginia, we remain committed to the ideal of providing high quality, client focused, design solutions that meet budget and schedule requirements. This commitment to quality has been recognized through both State and National design awards, as well as through the long-term client relationships that we have developed.

Professional Services



ZMM has been dedicated to the integrated approach to building design which is unique to architectural firms of our size. Our past successful experience demonstrates that providing multi-disciplined services within one organization results in a fully coordinated project. ZMM has the qualified professionals available to provide services throughout the duration of a project from the initial planning phases through post-occupancy evaluations and beyond.

Advantages of an integrated Design Approach:

- The Owner has a Single Point of Design Responsibility
- Improved Design Schedule
- Improved Coordination of Documents
- Improved Construction Phase Services
- Well Coordinated Documents Lead to Better Bids for the Owner

Additionally, ZMM is constantly working to improve the services we offer by addressing emerging and evolving trends that impact the design and construction market. ZMM has eight LEED accredited Professionals on staff to address the needs of our clients who are interested in designing buildings that meet the US Green Building Council's standards. This continues ZMM's active implementation of sustainable design principles on our projects.

ZMM has maintained an average of 35 employees over the last five years. Our team has the expertise to provide the services below:

Pre-Design

Educational Facility Planning
Programming
Space Planning
Feasibility Studies
Existing Building Evaluation
Site Evaluation and Analysis
Master Planning
Construction Cost Estimating

Post Design

Construction Administration
Value Engineering
Life Cycle Cost Analysis
Post-Occupancy Evaluation

Design

Architectural Design
Sustainable Design
Interior Design
Landscape Architecture
Structural Engineering
Mechanical Engineering
Electrical Engineering
Civil Engineering
Lighting Design
Energy Consumption Analysis



Award Winning Design



2014

AIA West Virginia Chapter: Merit Award
Achievement in Architecture in Sustainable Design
Huntington East Middle School
Huntington, West Virginia

AIA West Virginia Chapter: Merit Award
Achievement in Architecture
Southern West Virginia Community & Technical College
Williamson, West Virginia

AIA West Virginia Chapter: Merit Award
Achievement in Architecture in Interiors/Graphics
Girl Scouts of Black Diamond Council
Charleston, West Virginia

2012

AIA West Virginia Chapter: Honor Award
Excellence in Architecture
West Virginia Housing Development Fund Building
Charleston, West Virginia

2011

AIA West Virginia Chapter: Honor Award
Excellence in Architecture in Historical Preservation
Southside Elementary/Huntington Middle School
Huntington, West Virginia

AIA West Virginia Chapter: Honor Award
Excellence in Architecture
Joint Interagency Training & Education Center
Kingwood, West Virginia

AIA West Virginia Chapter: Merit Award
Excellence in Architecture in Interiors
WV State Office Building #5, 10th Floor Renovation
Charleston, West Virginia



Additional Award Winning Design

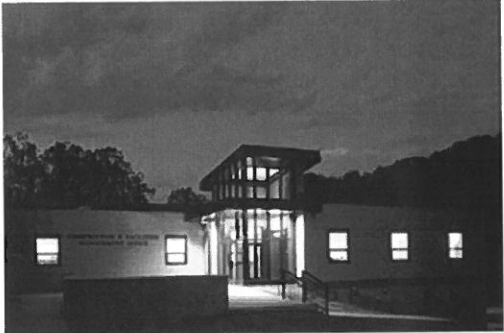


2010

AIA West Virginia Chapter: Honor Award

Excellence in Architecture

Hacker Valley PK-8 School
Hacker Valley, West Virginia



2009

AIA West Virginia Chapter: Merit Award

Excellence in Architecture

Construction & Facilities Management Office (CFMO)
Charleston, West Virginia



2008

AIA West Virginia Chapter: Honor Award

Excellence in Architecture

Erma Byrd Center
Beaver, West Virginia



2007

AIA West Virginia Chapter: Honor Award

Excellence in Architecture in Architecture

Lincoln County High School
Hamlin, West Virginia



2006

AIA West Virginia Chapter: Merit Award

Excellence in Architecture

Gene Spadaro Juvenile Center
Mt. Hope, West Virginia

Adam R. Krason, AIA, NCARB, LEED AP



Role

Architect, Principal

Professional Registrations

Registered Architect (WV, OH, KY, VA)

LEED Accredited Professional

NCARB (55,984)

Construction Specifications Institute (CSI)

Construction Documents Technician (CDT)

Mr. Krason has served in the capacity of Architect and Project Manager for a variety of projects at ZMM. This experience includes Military, Educational (K-12 and Higher Education), Office, Justice (Courthouses, Correctional, Justice Centers), and Multi-Unit Residential projects. Mr. Krason's responsibilities include programming, design, documentation, coordination of the architectural and engineering team, as well as construction administration. Mr. Krason began his career in 1998, working on a variety of educational, commercial office, and correctional projects throughout Ohio, West Virginia, and North Carolina.

Mr. Krason has been an advocate of sustainable design in West Virginia, participating in a variety of sustainable design seminars throughout the State, and serving on the West Virginia School Building Authority Green Schools Sub-Committee. Recently, Mr. Krason helped coordinate the "Making the Business Case for Sustainability" conference at the University of Charleston that included speakers from Armstrong Industries, American Electric Power, CB Richard Ellis, and Interface Raise. Mr. Krason also assisted Habitat for Humanity Kanawha and Putnam County develop a commercial recycling program to fill a void in the sustainable design infrastructure in West Virginia. Mr. Krason has noted that, "I became a LEED Accredited Professional because I believe that good design has value, and the ability to impact our daily lives. Sustainable design showcases the value of design through demonstrated improvements in the performance of the students and employees who occupy our buildings." In addition to his design and project management responsibilities, Mr. Krason serves on the Board of Directors and is responsible for business development at ZMM.

Project Experience

Joint Interagency Training & Education Center (WVARNG), Kingwood, WV Mr. Krason was responsible for the preliminary programming, and participated in the schematic design of the 180,000 SF addition to the Regional Training Institute at Camp Dawson. Mr. Krason was also responsible

Education

Bachelor of Architecture, The Catholic University of America, 1998

Bachelor of Civil Engineering, The Catholic University of America, 1997

Employment History

2007 - Present, Principal, ZMM

2007 - Present, Board of Directors, ZMM

2003 - Present, Architect, Project Manager, ZMM

1998 - 2003, Architect, Project Manager, Charleston Area Architectural Firm

Civic Affiliations

- American Institute of Architects, Member
- Habitat for Humanity Kanawha & Putnam County, Board of Directors 2011 - 2014
- WV Qualification Based Selections Council, President, 2012/2013
- Leadership WV 2010 - 2012
- Charleston Rotary
- West Side Main Street, Board of Directors 2008 - 2014
- City of Charleston Land Trust 2008 - 2014

for managing the production effort for the billeting (hotel) expansion, which increased the total billeting capacity at the JITEC to 600 rooms. The project is aiming for LEED Silver Certification.

Morgantown Readiness Center (WVARNG), Morgantown, WV

Mr. Krason was the project architect on the new Morgantown Readiness Center. This facility is a unique due to its location on an abandoned airport runway at the Morgantown Municipal Airport. The 54,000 SF Readiness Center occupies a 35 acre tract at the airport. This center supports traditional military functions including the 1-201st Field Artillery. A significant portion of the Morgantown Readiness Center supports the 249th Army Band. The Readiness Center contains a performance hall, pre-function spaces, as well as a variety of training and rehearsal areas.

Construction and Facilities Management Office Expansion (WVARNG), Charleston, WV

Mr. Krason was responsible for the programming, architectural design, and project management of the office expansion. The project included the renovation and addition to an existing pre-engineered metal building. The design, which was honored with a 2009 AIA Merit Award, focused the client's resources on a new entry and corridor that separated the existing office space from the addition.

Wood County Justice Center, Parkersburg, WV

Mr. Krason was the Project Manager for this adaptive reuse project. The existing 32,000 SF building creates a new Magistrate Court and Sheriff's Department. The justice center is LEED Silver Certified.

Tucker County Courthouse Annex, Parsons, WV

Mr. Krason was the Project Architect for the courthouse annex addition in Parsons, WV. The Annex is a 4-story, 21,000 Square Foot building that is adjacent to the Tucker County Courthouse. The annex will house spaces for the Circuit Court, Circuit Clerk, Family Court, Magistrate Court, Prosecuting Attorney, County Commission, County Clerk, Community Corrections, and Probation Office.

Edgewood Elementary School, Charleston, WV

Mr. Krason is currently participating on a design team that is developing the new Kanawha County Elementary School on Charleston's West Side. The school is being designed as a 21st Century Learning Environment, with a focus on integrating technology into the delivery of the curriculum. Instructional areas will be located off of an open 'exploratorium' that is being designed to function like a children's museum, providing a variety of learning opportunities, and flexible educational spaces. The school will also visibly integrate sustainable design principles to serve as a teaching tool for the students. Mr. Krason is currently working with students from Watts and Robbins Elementary Schools in Kanawha County, assisting them in an effort to actively participate in the design process.

Bridgemont Community and Technical College - Davis Hall Renovation and Master Plan, Montgomery, WV

Mr. Krason led an architectural and engineering investigation into the condition of Davis Hall to help Bridgemont Community and Technical College to develop a scope for the current renovation project, as well as a plan to undertake deferred maintenance at the facility. The project scope included remedying several life safety deficiencies, as well as improvements to the building envelope.

State Office Building #5, 10th Floor Renovation (Office of Technology), Charleston, WV

Mr. Krason led an architectural and engineering team that completed a detailed assessment of State Office Buildings 5, 6, & 7. Once the assessment was complete, ZMM had the opportunity to implement the proposed improvements on the 10th Floor of State Office Building #5 for the Office of Technology. The renovations, aiming for LEED-CI Certification, re-oriented the layout by drawing all private offices into the building core, providing access to daylight and views for all employees. The design also utilized acoustical ceiling clouds and bulkheads to maximize the acoustical performance, while also increasing the volume of the space.

Participated on the team that won the following awards and acknowledgements:

2014 WV AIA Merit Award *Girl Scouts of Black Diamond Council, Charleston, WV*

2011 WV AIA Honor Award *Joint Interagency Training and Education Center (JITEC), Kingwood, WV*

2011 AIA Honor Award *State Office Building #5, 10th Floor Renovation, Charleston, WV*

2009 AIA Merit Award *WVARNG Construction and Facilities Management Office, Charleston, WV*

Robert Doeffinger, PE



Role

Engineering Principal

Professional Registrations

Professional Engineer (WV, VA, PA, OH, TN, KY, NY, NH, ME, NC, SC, FL)

As ZMM's Principal Engineer, Mr. Doeffinger is in charge of the engineering disciplines, it is his responsibility to ensure that the mechanical and electrical engineering components of ZMM's design are coordinated and integrated into the final product.

After graduate school in Architectural Engineering, Mr. Doeffinger joined ZMM. He has 37 years design experience in mechanical and electrical systems for buildings. He has a broad range of engineering experience in education, industrial and manufacturing facilities, large retail, correctional and jails, office buildings, and military facilities.

Mr. Doeffinger is responsible for new design and retrofit of chilled water systems for all building types including large regional shopping malls. He is involved daily with the firm's selection of appropriate systems for all building types and performs life-cycle cost analysis and energy studies.

Mr. Doeffinger is a member of the American Society of Heating, Ventilation and Air-Conditioning Engineers. He is the current national Chairman of the Technical Committee on Heating and Air-Conditioning Load Calculation. He is involved in writing the National Standard on the Method of Calculation, which will shape the nature of the future building energy use for the nation.

Project Experience

West Virginia Army National Guard, Joint Interagency Training & Education Center (WVARNG), Kingwood, WV

Mr. Doeffinger was responsible for the mechanical engineering design of the 600 room billeting expansion to the Regional Training Institute at Camp Dawson. The project is aiming for LEED Silver Certification. The project is served by a 4 - pipe hot and chilled water system with an energy recovery ventilation system.

Bridgemont Community and Technical College Davis Hall Renovation, Montgomery, WV

Mr. Doeffinger led an architectural and engineering investigation into the condition of Davis Hall to help Bridgemont Community and Technical College to develop a scope for the current renovation project,

Education

Master of Science Architectural Engineering, Pennsylvania State University, 1976

Bachelor of Science Mechanical Engineering, West Virginia University, 1973

Employment History

2010 - Present, President, ZMM
1976 - 2010, Vice President and Engineering Principal, ZMM

Civic Affiliations

- ASHRAE – Member of the Technical Committee Load Calculations Data and Procedures for 15 years, serving as chairman. Presently Chairman of the Research Subcommittee
- Advisory Board for the Department of Electrical Engineering Technology, Bridgemont Community and Technical College
- City of Pt. Pleasant, WV – 2nd Ward Councilman for 20 years

as well as a plan to undertake deferred maintenance at the facility. The project scope included remedying several life safety deficiencies, as well as improvements to the building envelope.

West Virginia Research, Education, and Technology – Building 704, South Charleston WV Mr. Doeffinger is the engineering principal-in-charge of preparing a life safety analysis of the building as well as design services to improve the exterior façade of Building 704 at the WV Research, Education, and Technology Park. Building 704 had previously been utilized as a campus maintenance facility by Union Carbide and DOW Chemical.

West Virginia Regional Technology Park (WVRTP) - Building 740, South Charleston WV Mr. Doeffinger is the engineering principal-in-charge of the new Steam Plant for Building 740. This project involves designing and constructing the Interim Steam Heating System throughout Building 740.

Building 770 Evaluation, South Charleston, WV Mr. Doeffinger has worked with MATRIC to conduct a detailed assessment of Building 770 to help establish a budget for required improvements to the facility. ZMM's services included an investigation, assessment of the building condition including the building envelope, life safety issues, and engineering systems, as well as the development of conceptual plans for the lab areas. ZMM's assessment also included a detailed review of the building's current and future energy use. The energy consumption information helped to validate the payback of the proposed improvements.

West Virginia Capitol Complex - Buildings #5, 6, & 7, Charleston, WV Mr. Doeffinger was the Project Engineer for the in-depth analysis of Buildings #5,6,& 7 at the State Capitol Campus. The study included the preparation of as-built plans, as well as an analysis of all building systems, including: Life Safety; Vertical Transportation; Mechanical; Electrical; Data; Façade; Structure; and Roofing. The analysis also included a study related to potential hazardous materials in the facility.

WVRTP Steam Plant Analysis, South Charleston, WV Mr. Doeffinger worked collaboratively with WVRTP staff and various consultants to develop an analysis of the efficiency of the Tech Park steam plant. Based upon the results of the analysis, the WVRTP decided to shutter the plant, resulting in a significant yearly savings.

Building 740 Steam Plant, South Charleston, WV Mr. Doeffinger is working with West Virginia Heating and Plumbing to develop a steam plant for Building 740. The steam plant will include new steam (convertible to hot water) boilers for the facility. The project also includes a new four bay block building to house the steam plant. The system designed by ZMM meets the current needs, and also plans for future improvements to the facility.

The Plaza at King of Prussia, Pittsburgh, PA One of the largest retail centers in the east. Mr. Doeffinger has performed engineering services for the past 20 years. The project consists of a 5,000 -ton chilled water plant and 1,500,000 cfm variable volume system for tenants and constant volume air system for common areas and an engineered smoke control system. The most recent project is a 2011, 100,000 square foot expansion of tenant spaces, a renovation of the food court, and a 1,250-ton chiller addition to the central chilled water plant.

NGK Oxygen Sensor and Spark Plug Plant, Sissonville, WV Mr. Doeffinger was in charge of engineering design of the 250,000 SF NGK facility. The most recent 130,000 SF expansion moved NGK's spark plug production for the west coast to West Virginia. For both the oxygen sensor plant and spark plug plant Mr. Doeffinger designed a cycle water system for the manufacturing equipment.

Stephen Hedrick, PE



Role

Structural Engineer

Professional Registrations

Professional Engineer (WV)

Mr. Hedrick is responsible for overseeing the design of the Structural systems, ensuring that the structural systems not only meet the building code requirements, but meet the long-term needs of the owner. He performs the analysis and design of the structural components to resist the loads from lateral and gravity forces. He coordinates with the other disciplines in order to integrate the Structural system into the building, working with the architects to determine the most economical way to construct the components of the building. Mr. Hedrick has participated on several LEED registered projects. Mr. Hedrick also oversees the work of other engineers and coordinates the office structural standards.

Mr. Hedrick began his career in structural engineering by designing large scale residential and light commercial structures for hurricane force winds. He has a broad range of experience in masonry, concrete, steel and timber design. In 2007, Mr. Hedrick moved back to Charleston, WV, to take a structural engineering position with ZMM where he supervises the design and production of the structural engineering projects.

Project Experience

Joint Interagency Training and Education Center (WVARNG) Kingwood, WV Mr. Hedrick was responsible for the overall structural design of the three story billeting addition. The project met the requirements of the building code along with the additional requirements of the Department of Defense for blast and progressive collapse resistance.

Jackson County Armed Forces Reserve Center, (WVARNG) Millwood, WV Mr. Hedrick was responsible for the overall structural design of the single story armory type structure. The project included the design of light weight metal trusses and long-span steel joists in the drill hall.

Wood County Justice Center, Parkersburg, WV

Mr. Hedrick was responsible for the structural design for this adaptive reuse project in Parkersburg WV. The existing 32,000 SF building will create a new Magistrate Court and a Sheriff's Department. The project received LEED Silver Certification.

Education

Master of Science, Civil Engineering,
University of Tennessee, 2003

Bachelor of Civil Engineering,
West Virginia Institute of Technology,
2001

Employment History

2013 - Present, Board of Directors, ZMM
2007 - Present, Structural Engineer,
ZMM
2003 - 2007, Structural Engineer, McCall
Engineering, Inc.

Civic Affiliations

- American Institute of Steel
Construction, Member

Tucker County Courthouse Annex, Parsons, WV

Mr. Hedrick was responsible for the structural design for the courthouse annex addition in Parsons, WV. The Annex is a 4-story, 21,000 Square Foot building that is adjacent to the Tucker County Courthouse. The annex will house spaces for the Circuit Court, Circuit Clerk, Family Court, Magistrate Court, Prosecuting Attorney, County Commission, County Clerk, Community Corrections, and Probation Office.

Edgewood Elementary School, Charleston, WV Mr. Hedrick is involved with structural design on the new Kanawha County Elementary School on Charleston's West Side. The school is being designed as a 21st Century Learning Environment, with a focus on integrating technology into the delivery of the curriculum. Instructional areas will be located off of an open 'exploratorium' that is being designed to function like a children's museum, providing a variety of learning opportunities, and flexible educational spaces. The school will also visibly integrate sustainable design principles to serve as a teaching tool for the students.

Huntington East Middle School, Huntington, WV Mr. Hedrick was responsible for the overall structural design of the single story school building. The design included masonry wall, metal panel walls and storefront glazing in order to allow additional light for the LEED designed project.

Bridgemont Community and Technical College (Davis Hall, Building 704), Montgomery, WV

Mr. Hedrick is responsible for the structural design for a design team that is currently preparing construction documents for the renovation to an existing 7-story, 77,215 SF educational building. The project scope includes remedying several engineering and life safety deficiencies, as well as architectural improvements to the building envelope.

Southern West Virginia Community and Technical College, Williamson, WV Mr. Hedrick was responsible for the structural design of the new 22,000 SF Applied Technology Center. The building featured large, flexible teaching areas that can adapt as the curriculum changes for each program. The project is targeting LEED Silver Certification.

West Virginia Housing Development Fund Building, Charleston, WV Mr. Hedrick was responsible for the overall structural design of the two story steel frame and masonry building. The structure consisted of a composite concrete floor slab supported by steel beams and columns supported on a deep pile foundation.

Other Firm Experience:

Mr. Hedrick has researched and developed design criteria for structural insulated panels, prepared designs for earthquake and wind on FRP tanks. His role has also included supervising the work of design engineers in preparation of construction documents.

Scot Casdorff, PE



Role

Electrical Engineer

Professional Registrations

Professional Engineer (WV)

Mr. Casdorff serves as an Electrical Engineer with ZMM providing electrical design services for a vast number of projects consisting of commercial, educational, correctional, institutional, and military facilities.

Mr. Casdorff is responsible for many facets of the project pertaining to electrical design such as interior and exterior lighting, power distribution, data system design, security, fire alarm, low voltage control systems, equipment specifications and performs electrical assessments during construction prior to the project's substantial completion date. Mr. Casdorff has participated on several LEED registered projects using energy conserving methods and utilizing lighting control systems and other means to meet or exceed ASHRAE 90.1, LEED, and energy code requirements.

Project Experience

Joint Interagency Education and Training Center (WVARNG), Kingwood, WV Mr. Casdorff was responsible for the electrical design of the 180,000 SF 3-story billeting/hotel expansion for the Army National Guard campus style facility for training and operational mission support. The expansion more than triples the facility size and increases the total capacity from 189 guest rooms to 600 guest rooms and suites. The project is targeted for LEED Silver Certification.

Jackson County Armed Forces Reserve Center, (WVARNG), Millwood, WV Mr. Casdorff was responsible for the electrical design of the 76,000 SF single story military reserve center which serves both the West Virginia Army National Guard and the United States Army Reserves (USAR) units. The multi-use facility provides educational spaces for classrooms, distance learning, physical training and a weapons simulation center. The project is targeted for LEED Silver Certification.

Glen Jean Armed Forces Reserve Center, (WVARNG), Glen Jean, WV Mr. Casdorff was responsible for the electrical design of the 102,000 SF military training facility which houses the Armed Forces Reserve Center (AFRC), Military Entrance Processing Station (MEPS), and an Organizational Maintenance Shop (OMS). The AFRC contains the

Education

Bachelor of Science, West Virginia Institute of Technology, 1995

Employment History

2000 - Present, Electrical Engineer, ZMM

1995 - 2000 Electrical Controls Systems Manager, WV Engineering Firm

administrative and training space for the 77th Brigade Troop Command, the 1863rd Transportation Company, and the 150th Armored Regiment Company. The MEPS houses their administrative, medical, headquarters, testing and storage functions at the facility. A comprehensive 8,500 SF OMS vehicle maintenance shop provides space for six large service workbays for maintaining the military fleet.

J.M. Chick Buckbee Juvenile Center, Romney, WV Mr. Casdorff was responsible for the electrical design of the maximum security juvenile detention center. The single story 26,000 SF facility houses intake, medical care, recreation, food service and offers educational programs to help rehabilitate young individuals.

Gene Spadaro Juvenile Center, Mt. Hope, WV Mr. Casdorff was responsible for the electrical design of the minimum security juvenile detention center which offers a softer approach to rehabilitation relying more on the affection from the caregivers than the restraints of lockdown helping young individuals make better life decisions.

Lakin Correctional Facility for Women, Lakin, WV Mr. Casdorff was responsible for the electrical design of a dormitory style expansion on site of an existing correctional facility built exclusively for women. The new 124 bed, 24,000SF dormitory style housing unit provides ample amenities and a culinary arts program for the inmate population. An additional 9,500 SF Correctional Industries building was located near the dormitory and offers a garment, sewing and embroidery factory and manufactures inmate clothing, linens and office chairs.

Lincoln County High School, Hamlin, WV Mr. Casdorff was responsible for the electrical power distribution throughout the 216,000 SF facility containing high school classes, vocational education, technical community college classes and a community health clinic. The project was a 2007 AIA Honor Award Winner.

Milton Middle School, Milton, WV Mr. Casdorff was responsible for the electrical design of the new 96,000 SF facility housing 700 middle school students grades 6 through 8.

Southern WV Community & Technical College, Williamson WV Mr. Casdorff was responsible for the electrical power and lighting distribution design of this 22,000 SF higher education facility. This project is being designed to meet the USGBC LEED Silver.

West Virginia Research, Education, and Technology – Building 704 WV

Mr. Casdorff is the electrical engineer for building 704 and responsible for electrical power and lighting distribution. Building 704 had previously been utilized as a campus maintenance facility by Union Carbide and DOW Chemical. Bridgemont began utilizing the facilities for instruction in the Spring of 2011.

West Virginia Housing Development Fund Office, Charleston, WV Mr. Casdorff was responsible for the electrical design of the 37,000 SF office building which provides natural daylighting into its interior spaces coupled with an automatic dimming system and motorized shade controls. This 2-story administrative facility houses approximately 95 to 100 employees with a flexible open office floor plan utilizing modular under-floor wiring to accommodate any future modifications of the workspace with minimal disruption to the employees. The project is targeted for LEED Silver Certification.

Current Education Projects:

Valley High School, Smithers, WV
Divide Elementary School, Lookout, WV

Nathan Spencer, AIA



Role

Architect

Professional Registrations

Registered Architect (WV)

Mr. Spencer is responsible for coordinating the efforts of the design team in preparing thorough and clear design documents. He has experience in all phases of design working on a wide range of building types including; military, educational, office, justice, and residential.

He has worked on several projects that are currently pursuing LEED certification. In addition to production, Mr. Spencer, is also experienced in 3d modeling. He has worked on several preliminary concept study models as well as high quality renderings and 3d models later in the design process. Mr. Spencer is also experienced in high quality physical models.

Mr. Spencer began his career in architecture with ZMM in 2003, working as a summer intern. After graduating in 2003, he began working at ZMM full time.

Project Experience

West Virginia Army National Guard, Joint Interagency Education and Training Center (WVARNG), Kingwood, WV
Participated in the schematic design of the 180,000 SF addition to the Regional Training Institute at Camp Dawson. Mr. Spencer was also responsible for coordinating the production effort for the billeting (hotel) expansion, which increased the total billeting capacity at the JITEC to 600 rooms. The project is aiming for LEED Silver Certification.

Tucker County Courthouse Annex, Parsons, WV

Mr. Spencer is the Project Architect for the Courthouse Annex renovation project. The Annex is a 4-story 21,000 Square Foot building that is adjacent to the Tucker County Courthouse. The annex will house spaces for the Circuit Court, Circuit Clerk, Family Court, Magistrate Court, Prosecuting Attorney, County Commission, County Clerk, Community Corrections, and Probation Office.

Jackson County Armed Forces Reserve Center, Ripley, WV

Mr. Spencer participated in the schematic design of the 76,000 SF Reserve Center in Jackson County, West Virginia. Mr. Spencer was also responsible for coordinating the production effort for the project. Mr. Spencer also produced several 3D

Education

Bachelor of Architecture, University of Tennessee, 2007

Employment History

2009 - Present, Architect, ZMM
2007 - 2009, Intern Architect, ZMM
2003 - 2007, Summer Intern, ZMM

Civic Affiliations

- American Institute of Architects, Member

models throughout the design process. The project is aiming for LEED Silver Certification.

Morgantown Readiness Center (WVARNG), Morgantown, WV

Mr. Spencer was a member of the production team for the 58,000 SF project, which housed the Army Band and associated performance spaces. Mr. Spencer also produced several 3d models throughout the design process. He also participated on all production work through all phases. The project is aiming for LEED Silver Certification.

Judge Black Courthouse Annex, Parkersburg, WV

Mr. Spencer assisted with the design and programming of the adaptive reuse of a former commercial space and movie theaters into a modern courthouse annex. The Judge Black Annex included two independent circulation paths – a secure entry and lobby for access to the Family Court and Prosecuting Attorney, and public access to the Assessor and Sheriff's Tax Department. The facility also houses several large public meeting rooms.

Highland Medical Facility, Charleston, WV

Mr. Spencer was responsible for coordinating the production effort for the 60,000+ SF mental health facility. Mr. Spencer also produced several 3-D models throughout the design process.

Edgewood Elementary School, Charleston, WV Mr. Spencer is currently participating on a design team that is developing the new Kanawha County Elementary School on Charleston's West Side. The school is being designed as a 21st Century Learning Environment, with a focus on integrating technology into the delivery of the curriculum. Instructional areas will be located off of an open 'exploratorium' that is being designed to function like a children's museum, providing a variety of learning opportunities, and flexible educational spaces. The school will also visibly integrate sustainable design principles to serve as a teaching tool for the students. A dental and health clinic is also on site for all enrolled students in the Kanawha County School District.

Mary Jo Cleland, PE



Role

Civil Engineer

Professional Registrations

Professional Engineer (WV)

Ms. Cleland is responsible for the site design for ZMM projects. She coordinates with the project architects and mechanical and electrical engineers to integrate the site layout with the building requirements. Ms. Cleland works with the client and the architect to plan the site circulation, parking, and green space. She is responsible for storm water management and utility layout. For sites with environmental concerns, Ms. Cleland coordinates with the appropriate agencies and assists in permit applications.

Ms. Cleland began her career as a 2nd Lieutenant in the US Air Force as a project engineer for aerospace projects. After serving four years in the Air Force, she moved back to West Virginia and began her career in civil engineering. She began assisting lead engineers at an environmental and engineering consultant firm with air quality permitting, utility extension projects, and site development projects. After gaining experience at the consultant firm, Ms. Cleland joined ZMM as the civil engineer for the firm. She has experience with urban and rural site, storm water management system, and site design.

Project Experience

Tackett Family Readiness Center, Charleston WV

Ms. Cleland was responsible for site design for a two story building located on a hillside. Due to the existing slopes, Ms. Cleland performed several analyses to determine the optimal finished floor elevations of the building. The building was set into the hillside to allow for on-grade access to both entrances. The access road was design with handicap parking at both entrances. The client wanted the building to have the least impact as practical for the site development. A large segmental block wall was utilized to limit disturbance of cut slopes.

Wood County Justice Center, Parkersburg, WV

Ms. Cleland was responsible for site design for this adaptive reuse project in Parkersburg WV. The existing 32,000 SF building will create a new Magistrate Court and a Sheriff's Department. The project is LEED Silver Certified.

Education

Bachelor of Science in Education,
West Virginia State University, 2001

Bachelor of Science in Aerospace
Engineering, United States Naval
Academy, 1993

Employment History

2009 - Present, Civil Engineer, ZMM
2002 - 2009, Project Engineer, Potesta &
Associates, Inc.
1993 - 1997, Aerospace Engineer,
United States Air Force

Civic Affiliations

- National Society of Professional Engineers
- West Virginia Society of Professional Engineers

West Side Elementary School, Charleston, WV

Ms. Cleland was responsible for the site design and stormwater management for this site located within a city block. The site utilities were readily available and minimal grading was required for this site. The challenge was the stormwater management requirements. The pre-construction site conditions were a small school building and a large play field took up most of the site. The post-construction site conditions were the opposite creating a significant increase in stormwater runoff rate. A stormwater retention system was designed to infiltrate the majority of the stormwater and recharge the groundwater.

Harts PK-8 School, Harts, WV

Ms. Cleland was responsible for site design and permitting. The site was constrained by the Guyandotte River, State Route 10, and an unmarked cemetery in the middle of the site. The site was laid out to avoid disturbance of the cemetery and create a building pad and access roads to satisfy the client, State Fire Marshall, and vehicular circulation. The site preparation package included building pad grading, rough site grading, and storm water management. Ms. Cleland coordinated with the local utility agencies, WV Department of Transportation, the United States Army Corps of Engineers, the local floodplain manager, and the WV Department of Environmental Protection.

Bridgemont Community and Technical College - Master Plan, Montgomery, WV

Ms. Cleland is the Civil Engineer on the overall Master Plan services to Bridgemont CTC, ZMM worked with various stakeholders to develop a Master Plan for Bridgemont's current and future facilities at the Tech Park. The Master Plan incorporated the need to develop a consistency between Bridgemont's Montgomery and South Charleston campuses, while also integrating the Bridgemont brand into the Park. The final design included planning for a new classroom and laboratory building adjacent to Building 704, across from the Advanced Technology Center. Signage, site circulation, parking, and campus amenities were also included in this planning process.

Highland Hospital, Charleston, WV

Ms. Cleland was responsible for the site development including utility extensions and relocations, stormwater drainage design, site pedestrian and traffic circulation, and parking area layout. Ms. Cleland also coordinated with the City Engineer to meet local requirements for stormwater management, zoning ordinances, and driveway layout. In addition to coordinating with the City, Ms. Cleland was responsible for permitting required by state agencies for site development.

Project Experience with Other Firms: Ms. Cleland assisted with site development projects, utility extensions, pump station design, outlet structure design, and wastewater treatment plant design prior to coming to ZMM. In the eastern panhandle of West Virginia, Ms. Cleland designed the site layout and utilities for a planned hill side community with phased development plans. She assisted on the site utilities and sanitary sewer extension project for a two schools in Southern West Virginia.

Ms. Cleland also has experience with environmental investigations and air quality permitting. She assisted industrial clients with preparation and assembly of air permit application to the West Virginia Department of Environmental Protection. Ms. Cleland coordinated with the agencies through to permit issuance.



Construction Administrator

Professional Credentials

CSI, Certified Construction Specifier (Construction Specification Institute)

CDT, Certified Construction Document Technologist

Mr. Unrue is responsible for overseeing the construction of ZMM projects. He is the liason between the Owner and Contractor. Responsible for biweekly site visits, attend progress meetings, certify applications for payment, change order processes, Request for information.

Mr. Unrue has performed construction administration services on a variety of building types including: Educational Facilities, Correctional Facilities, and Office/Light Industrial Facilities.

His past experience in the construction testing and environmental fields is a benefit to clients during the site preparation and foundation installation.

Project Experience

- Joint Interagency Training & Education Center (JITEC)
- Jackson County Armed Forces Reserve Center
- Morgantown Readiness Center
- Logan-Mingo Readiness Center
- State of West Virginia Division of Juvenile Services
- West Virginia Regional Jail & Correctional Facility Authority
- Tucker County Courthouse Annex
- Southside Elementary/Huntington Middle School
- Lincoln County High School
- St. Albans High School
- Milton Middle School
- Marshall University Elevator Project
- WV Housing Development Fund Office
- Huntington East Middle School
- Fort Gay Elementary School
- Job Corps Center, WV
- Sears, Roebuck & Company, Retail Centers
- Multiple Cabell County Schools, WV

Education

Bachelor of Science, University of Charleston, 1997

Associate of Science, West Virginia State University, 1992

Employment History

1991 - Present, Construction Administrator, ZMM

1985 - 1991, West Virginia Board of Regents, Charleston, WV

1979 - 1984, Charleston Area Architectural Firm, Charleston, WV

Civic Affiliations

- Associate Member, America Institute of Architects, West Virginia Chapter

Joint Interagency Training & Education Center

WVARNG



LOCATION:
Kingwood, WV

SIZE:
285,000 SF

COMPLETION:
2013

COST:
\$78.4M

OWNER:
COL David Shafer
WVARNG
1707 Coonskin Drive
Charleston, WV 25311
304.561.6539

AWARD:
2011 AIA Honor Award
West Virginia Chapter
Excellence in Architecture



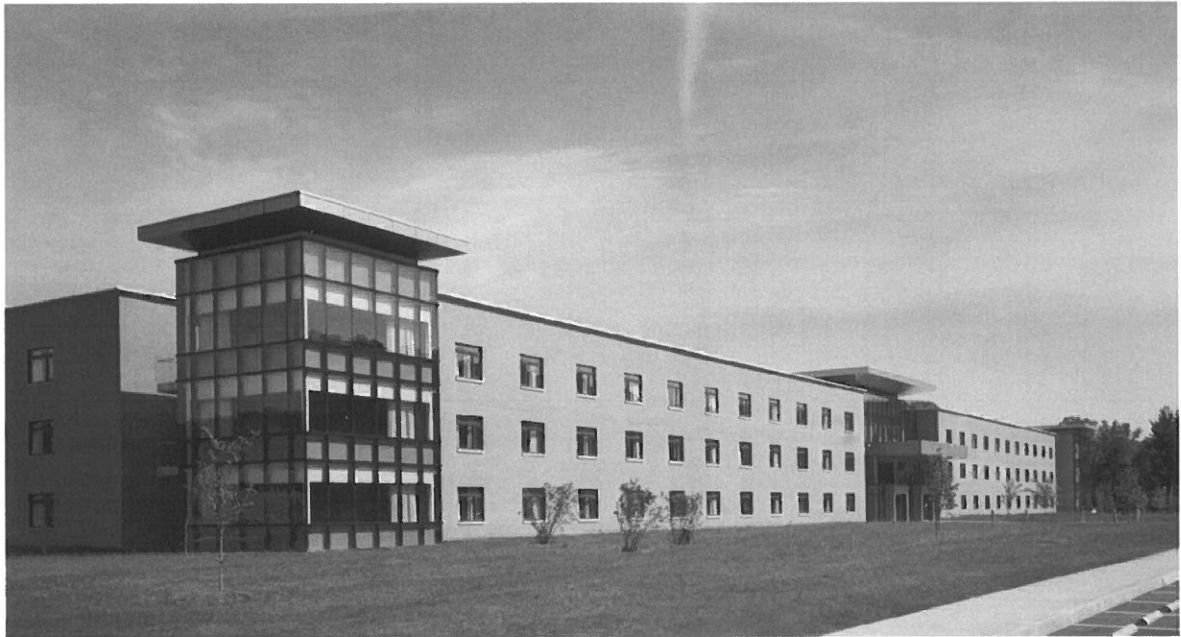
ZMM Architects and Engineers, in association with AECOM, is providing architectural and engineering design services for the Joint Interagency Training and Education Center (JITEC), an Army National Guard campus-style facility for training and operational mission support. Sited on 30 acres at the northern end of Camp Dawson between the Cheat River and the foot of Brier Mountain, this 283,000-SF project includes the design of a new operations building; expansion of the billeting facility; renovation of the training facility; creation of a new base entry checkpoint and visitor center; and design for walkway connectors between all the facilities.

The project began with a review of the existing base master plan, followed by a revision of the master plan concept. JITEC is a training and educational facility – the vision behind the site design and updated master plan is that of a college campus atmosphere. The clients goal was to create a campus environment that integrates existing buildings with new ones, which was accomplished by using compatible, yet distinct building materials.

The new facilities are designed to meet all anti-terrorism/force protection criteria and are slated for LEED-NC silver certification from the U.S. Green Building Council. The new 82,000-SF operations building is prominently sited as the main focal point upon entering Camp Dawson through the secure access control point and visitor's center, also designed by AECOM. The building's exterior complements its West Virginia setting. The entire building front, composed of glass and pre-cast concrete walls, is open and inviting with glazing that reflects the surrounding trees and hills.



Joint Interagency Training & Education Center



Security requirements for the command center influenced the design of the attached, copper-clad “black box” that is an homage to the native rock stratification seen throughout the state.

The building consists of four distinct areas: the Joint Operations Center; a suite of secure training rooms; base headquarters and JITEC administrative offices; and a 6,000 SF server and telecommunications room.

Entry to the Joint Operations Center (JOC) is provided by a secure mantrap adjacent to a dedicated security office. Built to SCIF standards, the JOC contains a state of the art command center housing 48 permanent work stations in a theater-style configuration facing a large video wall, flanked by conference rooms and offices for both officers and support staff. Within the JOC is a secure area consisting of workstations, offices, and two divisible conference rooms with secure video conferencing capabilities. The secure area construction dictates a windowless environment, requiring proper lighting and creative use of materials to create an agreeable work atmosphere.

The 180,000-SF billeting (hotel) expansion more than triples the facility size and increases the total capacity from 189 guest rooms to 600 guest rooms and suites. Designed to relate to the existing architecture with similar scale, materials, textures, and massing, the addition also brings in new elements, such as iconic glazed building corner elements, to integrate the design of the new operations building. A new dedicated lobby with terrazzo tile flooring leads to a monumental stair with terrazzo treads, open risers, and a glass/stainless steel railing for access to the open lounge areas on the second and third floors.

The lobby’s design provides a hotel atmosphere, underscored by the new Liberty Lounge, an upscale bar and restaurant area, with wood finishes salvaged from the gymnasium floor in the existing headquarters building. The new six “executive suites”, are designed to the full amenities of corporate hotels.

Morgantown Readiness Center

WVARNG



LOCATION:
Morgantown, WV

SIZE:
54,000 SF

COMPLETION:
2013

COST:
\$ 18.5M

CONTACT:
COL David Shafer
WVARNG
1707 Coonskin Drive
Charleston, WV 25311
304.561.6539



The Morgantown Readiness Center is a unique military facility for several reasons. While the Readiness Center supports traditional military functions including the 1-201st Field Artillery, a significant portion of the Morgantown Readiness Center supports the 249th Army Band. To support the band, the Readiness Center contains a performance hall, pre-function spaces, as well as a variety of training and rehearsal areas.

To efficiently create the stage and performance area the design team utilized a variety of dual function spaces. The stage is actually a large rehearsal space with an adjacent elevated recording area. Two large operable partitions are used – one to separate the rehearsal area from the remainder of the stage and the auditorium – while the other separates the auditorium from the Drill Hall. This configuration allowed the design team to maximize the West Virginia Army National Guard's investment by utilizing federally authorized space to also function as a large performance area. Acoustically, this challenge was met by creating a Drill Hall with an irregular shape that was contained within a rectilinear sloped barrel arch form. The geometry was complimented by acoustically engineered interior surfaces and finishes to create a vibrant and rich auditorium.

The facility is also unique due to its location on an abandoned airport runway at the Morgantown Municipal Airport. The 54,000 SF Readiness Center occupies a 35 acre tract at the airport. Additionally, the Readiness Center is located approximately twenty (20) miles from Camp Dawson, a large State and Federal training campus. As troops will often be travelling to Camp Dawson through the Morgantown Readiness Center, the facility needed to function as a 'gateway.'

Morgantown Readiness Center

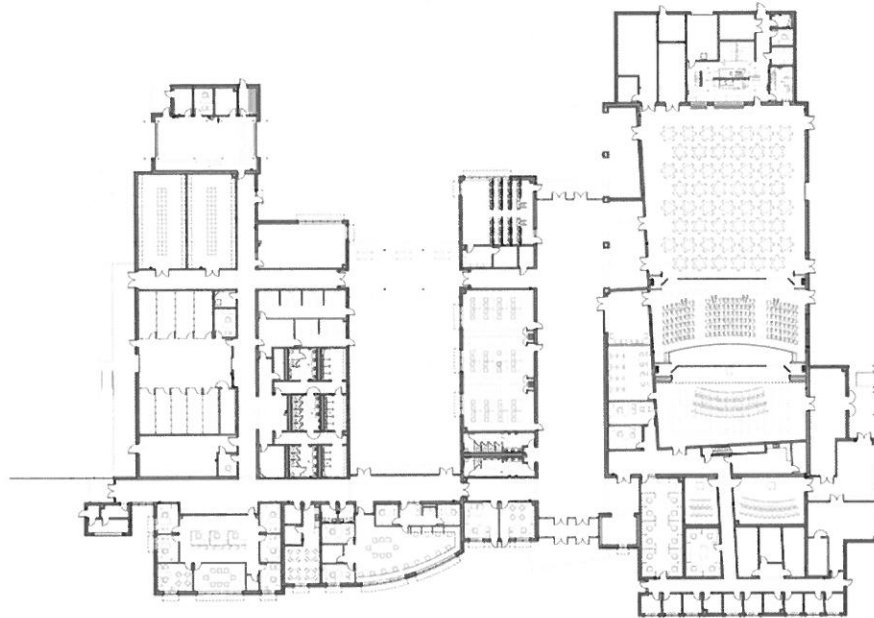
WVARNG



The creation of a 'gateway' facility was accomplished through exterior material choices (compatible with Camp Dawson), as well as the decision to utilize a tower-like feature to mark entry – a very prominent feature of the Regional Training Institute (RTI) at Camp Dawson. Where the RTI utilized a large cylindrical mass, the tower at the Morgantown Readiness Center respects the context of the former runway by reflecting the aesthetic of an airport control tower.

The Morgantown Readiness Center is also a sustainable building, and is in the process of pursuing LEED Certification from the USGBC. The 'U' shaped layout of the facility improves access to daylighting and views, while also limiting public access to the Guard's administrative and storage areas. Additional sustainable features include a reflective roof, the use of regional materials, and efficient lighting and HVAC systems.

While many features are addressed in the design of the Morgantown Readiness Center, the final result is a harmonious composition that reflects both its function and the environment, while deferring to its location on an abandoned runway.



Jackson County Armed Forces Reserve Center

WVARNG



LOCATION:
Millwood, WV

SIZE:
75,000 SF

COST:
\$20M

COMPLETION:
Fall 2011

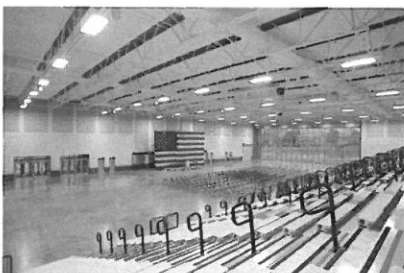
CONTACT:
COL David Shafer
WVARNG
1707 Coonskin Drive
Charleston, WV 25311
304.561.6539



The new facility houses both the West Virginia Army National Guard (WVARNG) and the United States Army Reserves (USAR). The primary user for the WVARNG will be DET 1 821st Engineering Company, who will be supported by a FSC of the 1092nd. USAR occupants will include PLT AMMO 261 OD and PLT 1 (Postal) and PLT 6 (Postal) of the 44th Personnel Company. The facility also includes an expanded Drill Hall that can serve as a convention and meeting space, which is being funded by the Jackson County Commission, additional federal appropriations, and the State of West Virginia National Guard.

The relationship between the structures became crucial to the site layout. The new facility is centered on the existing house, increasing the exposure of the facility from Route 2 - the major route of vehicular travel that parallels the Ohio River. Once the aesthetic of the building was established, the massing of the new facility was defined by breaking-down the facility into smaller mass elements that more closely reflected the Georgian Style, and that of many Army posts, such as Fort Meyer in Northern Virginia. The larger programmatic elements such as the Drill Hall and the storage areas employ an aesthetic that more closely implies their function.

The layout of the facility includes a main entry with the USAR and WVARNG Recruiting, Family Support, and Administrative areas located on separate sides (USAR to the left, WVARNG to the right). A transverse wing on the left houses all functions that have the potential for public use, such as the Drill Hall and the Educational component, while all primary military spaces developed along a similar perpendicular wing on the right. This allows for separate entries to be developed for public functions, while the remainder of the facility can be secured. The layout also creates a large central courtyard or parade field that would be located at lower grade to define the edge facing the river. This edge is defined by a canopy that connects storage and locker areas to the expanded Drill Hall.



Construction & Facilities Management Office

WVARNG



LOCATION:
Charleston, WV

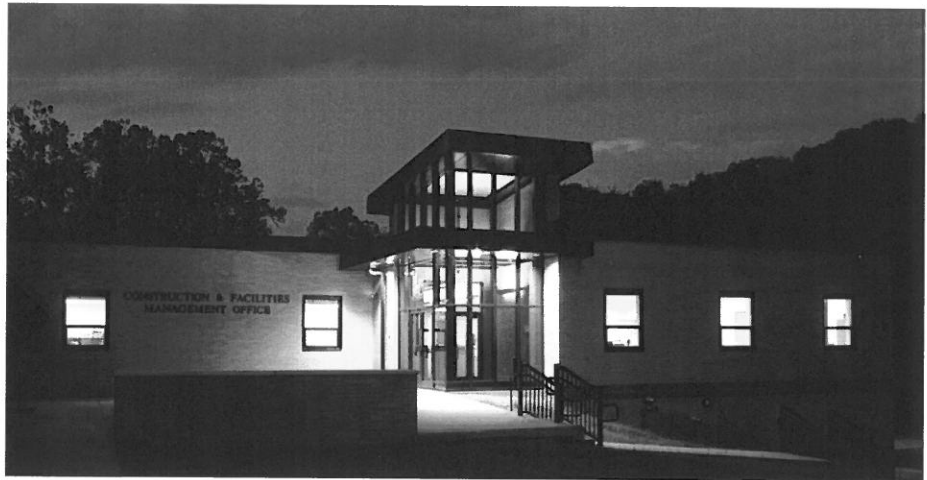
SIZE:
19,935 SF

COST:
\$3.5M

COMPLETION:
2008

CONTACT:
COL David Shafer
WVARNG
1707 Coonskin Drive
Charleston, WV 25311
304.561.6539

AWARD:
2009 AIA Merit Award,
West Virginia Chapter,
Achievement in Architecture



The Construction and Facilities Management Office (CFMO) Expansion project will bring all of the operations of the CFMO together under one roof. The branches that will occupy this facility include: Director of Engineering, Environmental, Planning and Programming, Facility Operations & Maintenance, Business Management, Resource Management, and Design and Construction. This new facility is located slightly to the front, and adjacent to the existing facility, lending prominence to the new construction, and providing a new aesthetic to the entire complex.



This transitional space was designed to connect the two structures, while maintaining a connection to the outside through use of natural light, direct visual connections to the exterior, large volumes, irregular geometries, and the use of natural materials.

The entry design was coordinated with the Recruiting and Retention building to create an outdoor courtyard, along with new sidewalks, stairs and signage. The entry roof is sloped to provide a greater massing, while a lower canopy provides scale and protection from the elements. Large gathering and work spaces were located on the north elevation to take advantage of large expanses of glazing located to capture indirect light and views of Coonskin Park.



Tackett Family Readiness Center

WVARNG



LOCATION:
Charleston, WV

SIZE:
7,400 SF

COMPLETION:
February 2011

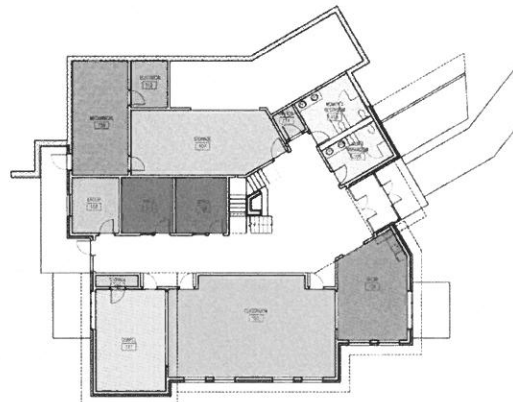
COST:
\$1.57M

CONTACT:
COL David Shafer
WVARNG
1707 Coonskin Drive
Charleston, WV 25311
304.561.6539

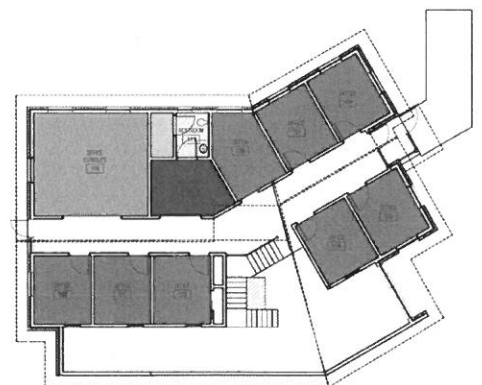


The Family Support Center is a two - story brick building with a sloped roof stepped into the wooded hillside adjacent to the Army National Guard facilities in Charleston, West Virginia. The building is designed to provide for a multitude of military family assistance, guidance, education, training, and mentoring programs.

The support center contains 11 office spaces, a chapel, and a variety of classroom and meeting spaces for various programs. The building provides an abundance of natural light and a central fireplace to project a warm, comforting and supportive atmosphere.



Lower Level



Upper Level

Logan - Mingo Readiness Center

WVARNG



LOCATION:
Logan, WV

SIZE:
54,000 SF

COMPLETION:
2014

COST:
\$12M

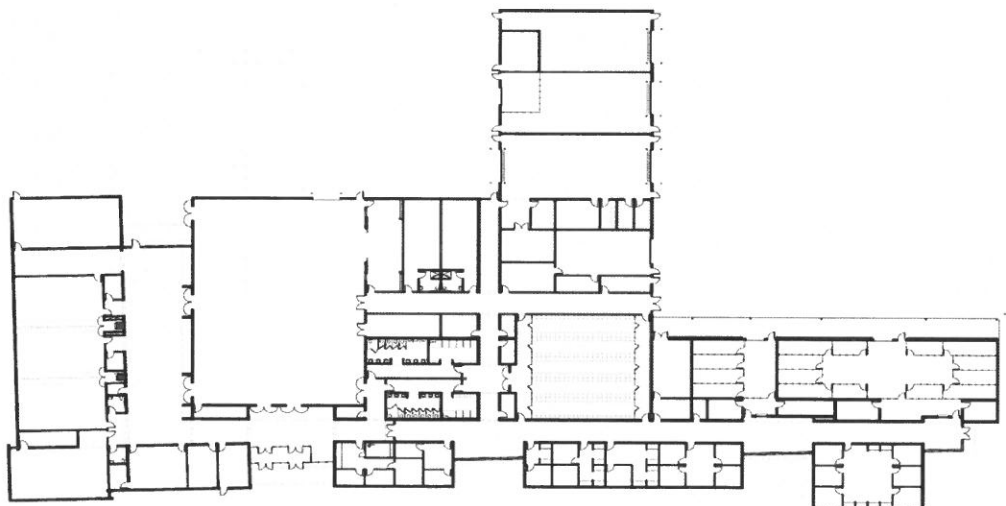
CONTACT:
COL David Shafer
WVARNG
1707 Coonskin Drive
Charleston, WV 25311
304.561.6539



The design of the Logan-Mingo Readiness center was developed by examining both the program and building site, and developing strategies to design a facility that is functional, responds to site, security, and aesthetic parameters, while requiring minimal maintenance.

The building layout was developed by working closely with the end-users to determine the appropriate configuration of building spaces to maximize the efficiency of the operations, and to respond to the unique missions of the 150th Armored Reconnaissance Squadron and the 156th Military Police (LNO) Detachment. Clear separation of "public" and "private" areas within the facility, unique office configurations related to training requirements, and the addition of State Funded additional spaces.

The exterior (and in many cases the interior) aesthetic of the facility was driven by the location of the Readiness Center within an industrial park on a reclaimed surface mined site. The decision led to the use of reinforced cast-in-place retaining walls that became both a functional and visual focus. Similar pre-cast walls are used to anchor the facility at the Distance Learning Center, while a cast-in-place retaining wall serves as a part of the Anti-Terrorism/Force Protection design.



Robert C. Byrd - Regional Training Institute

WVARNG



LOCATION:
Kingwood, WV

SIZE:
148,000 SF

COMPLETION:
2002

COST:
\$21 Million

CONTACT:
COL David Shafer
WVARNG
1707 Coonskin Drive
Charleston, WV 25311
304.561.6539



The Robert C. Byrd Regional Training Institute at Camp Dawson is a 148,000 SF facility designed to provide training, dormitory, dining, and recreational facilities for the West Virginia Army National Guard. The facility, which includes 183 private dormitory rooms in addition to a wide range of training spaces is designed to accommodate a variety of both military and civilian training functions.

The goal of the owner was to provide a campus within a building, with clear circulation and for various uses. ZMM accomplished this objective by employing a large cylindrical mass that marks the main entry where guests can coordinate both their housing and educational needs.

Additionally, the housing wing is joined to the recreational and educational components with a large gathering/transitional space that often serves as an informal meeting area. Due to the success of the project, and growing use of the facilities, ZMM is currently assisting the West Virginia Army National Guard with training and dormitory expansions.



West Virginia University at Parkersburg

Activity Center



LOCATION:
Parkersburg, WV

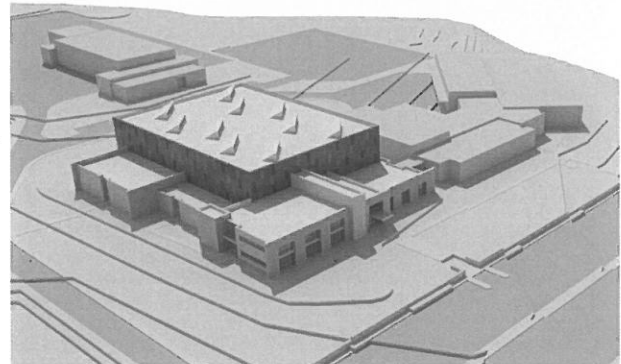
SIZE:
60,000 SF

COMPLETION:
TBA

CONTACT:
Dr. Marie Gnage
President
West Virginia University
at Parkersburg (WVU-P)
300 Campus Drive
Parkersburg, WV 26104
304.424.8000



ZMM is currently working with West Virginia University at Parkersburg and the West Virginia Army National Guard on the design of an Activity Center at the WVUP campus in Wood County. The new facility will include a large multi-purpose gathering space that can be used for commencements, athletic events, trade shows, and performances. The space will be able to seat over 4,000 people with a central stage, and 3,500 people with a stage as the focal point. The space can also seat more than 800 people in a banquet setting, or hold more than 120 booths in a trade show configuration. Additional functions will include flexible classroom space, a veteran's assistance office, as well as a large fitness area. The total facility will include nearly 60,000 SF, and will serve as a focal point for student and community activity on the campus.



The proposed building has been designed to complement the existing structures on the campus, which include the Main Building, the Caperton Center, and the new Applied Technology Center. The face of the building will include brick walls with punched openings. The brick façade is separated from the main volume of the assembly area with metal panel and glass walls that are recessed. The stairway is utilized to provide a large vertical stone element to match a shear wall on the main building. The new assembly space is covered with a tapestry of blue/grey metal panels. The assembly area also contains a number of north facing monitors on the roof to introduce natural light into the space, and to help meet the sustainable design requirements for the project.

The project is currently in the design phase, with construction expected to commence in the Summer of 2014.

Glen Jean Armed Forces Reserve Center

WVARNG



LOCATION:
Glen Jean, WV

SIZE:
110,000 SF

COST:
\$17M

COMPLETION:
2004

CONTACT:
COL David Shafer
WVARNG
1707 Coonskin Drive
Charleston, WV 25311
304.561.6539



The Glen Jean Armed Forces Center contains three distinct military functions: a facility for routine maintenance of over-the-road and tracked military vehicles, an armory housing four West Virginia National Guard units, and the Southern West Virginia Military Entrance Processing Station, where new recruits officially enter the military system.

The brick exterior walls are highlighted with limestone and metal trim accents. A large assembly hall, plus classroom and training space, enhance the ability of the armory building to provide training for military personnel to provide space for community functions.



Kingwood Armed Forces Reserve Center

WVARNG

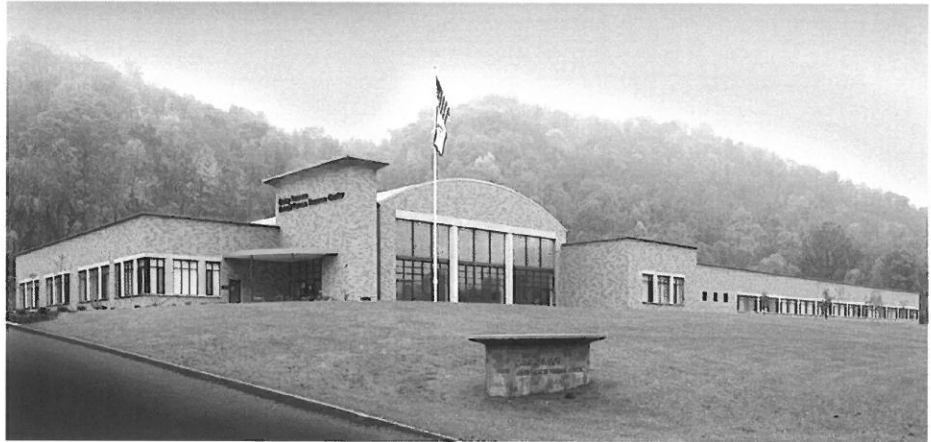


LOCATION:
Kingwood, WV

SIZE:
56,200 SF

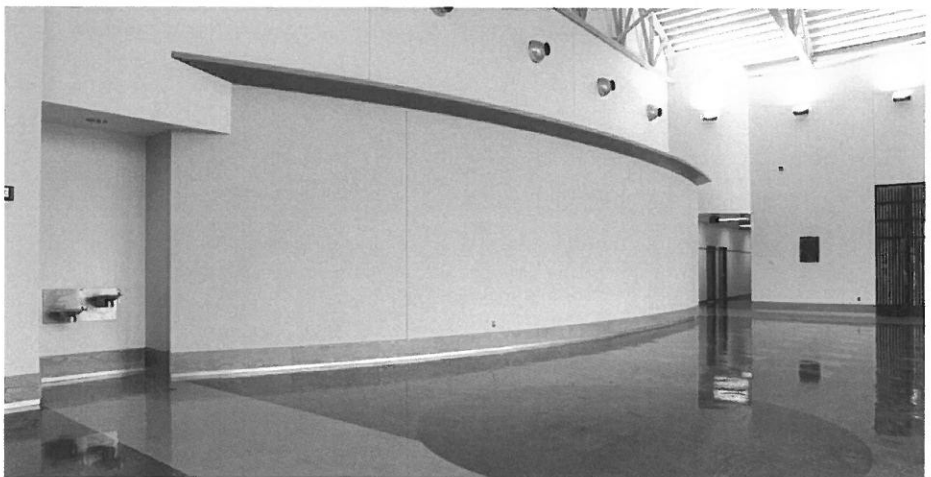
COMPLETION:
2000

CONTACT:
COL David Shafer
WVARNG
1707 Coonskin Drive
Charleston, WV 25311
304.561.6539



The Armed Forces Reserve Center will house five National Guard and Army Reserve Units and their support personnel. Its mission is twofold: first, to maintain readiness for its attached units and second, to serve as a resource to the surrounding community.

The primary readiness mission for the center's attached units is accomplished by providing designated spaces for each unit as well as general educational and gathering spaces that can be shared among the units. The building's community mission is to provide a gathering space for social functions, a shelter-in-place in times of natural disaster, and a community education resource with distance learning network capabilities. It also includes kitchen and dining facilities and physical fitness areas.



HVAC Experience

HVAC Renovations

Wayne County Tolsia High School HVAC

Cabell County – (Multiple HVAC Projects)

Huntington Herald Dispatch HVAC Study

Hamlin High School – HVAC Replacement Wall Repair

Walker Machinery – Main Office Renovation HVAC

Walker Diamond Office HVAC

Walker Machinery – Rita HVAC Renovations

State of WV – HVAC System at Governor’s Mansion Corrective Study

Camp Dawson – Regional Training Institute HVAC Improvements

Fayette County Valley Elementary HVAC Renovation

Central Regional Jail – HVAC and Roof Replacement

King of Prussia, PA – HVAC Design (Multiple Projects)

Kanawha Valley Senior Services HVAC Building Documents

Frankfort – Greenbrier County HVAC Renovation

Wayne County – New HVAC System Projects

Greenbrier County – New HVAC System Projects



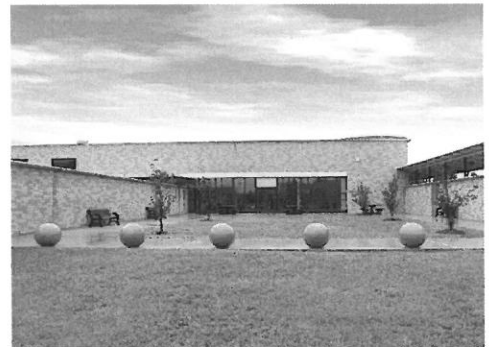
LOCATION:
Kingwood, WV

SIZE:
148,066 SF

COST:
\$21M

COMPLETION:
2002

CONTACT:
COL David Shafer
WVARNG
1707 Coonskin Drive
Charleston, WV 25311
304.561.6539



The Regional Training Institute at Camp Dawson is a new 148,066 square foot facility that will provide a setting for a variety of training classes, meetings, and conferences serving both military and civilian populations from the region and areas throughout the country. The facility includes classrooms, library, sleeping rooms, dining room, auditorium, swimming pool, Post Exchange and snack bar.

The Training Institute has a 400 Ton primary/secondary variable flow chiller water system, and an 8,800 MBH primary variable flow hot water system. The hot water system serves variable and constant value air handling units, fan coils, the swimming pool conditioner, and make up air units.



The Plaza at King of Prussia

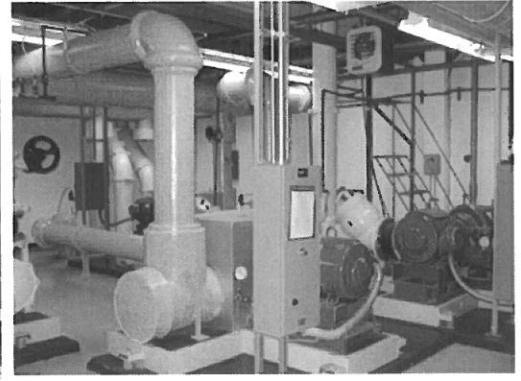
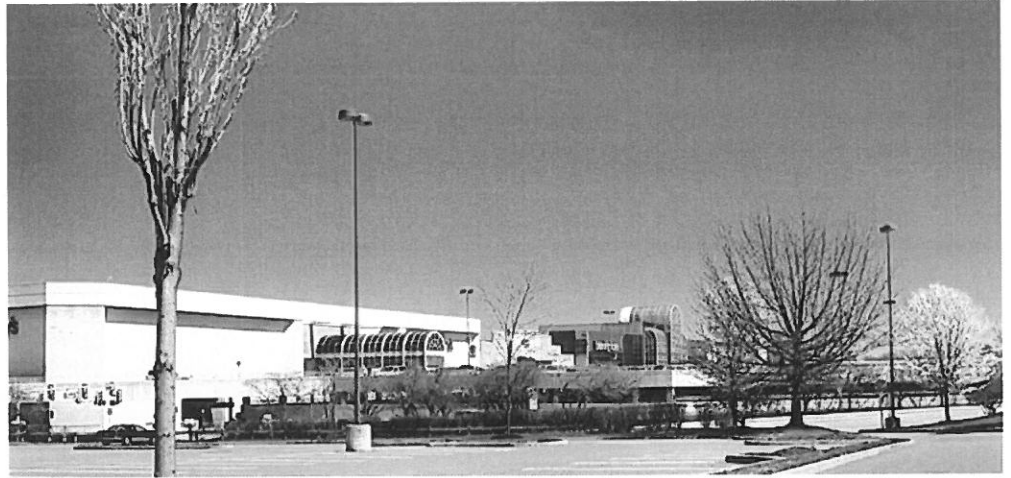
Multiple HVAC Replacements



COST:
\$30M

COMPLETION:
2006

CONTACT:
Mr. Mickey McLaughlin
Director
Plaza Mall Management
160 North Gulph Road
King of Prussia, PA
19406
610.337.9272



The Plaza at King of Prussia - Philadelphia, Pennsylvania

MP Services – Design Build
2,500,000 SF, 4,000-Ton Chilled Water Plant, VAV and CV
Air Handling System
Existing and New Spaces

The Court at King of Prussia - Philadelphia, Pennsylvania

MEP Services
Addition of a 3,000-Ton Chilled Water Plant Including
New Structure and Replacement of All Air Handling Units
Primary and Secondary Variable Chilled Water System

The Plaza at King of Prussia - Philadelphia, Pennsylvania

MEP Services
Addition of 800-Tons of Chilled Water Air Handlers Units

Greenbrier East High School

HVAC Replacement



COST:
\$11.8M

COMPLETION:
2005

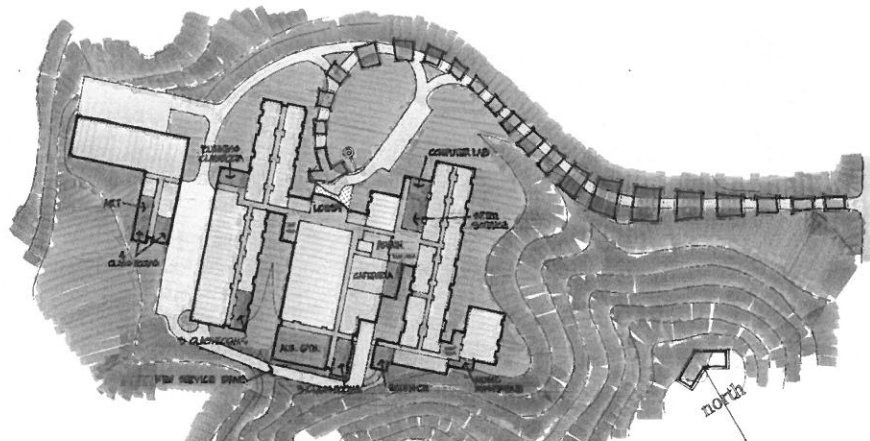
SIZE:
Existing 173,538 SF
Additions 41,683 SF

CONTACT:
Sallie E. Dalton
Superintendent
202 Chestnut Street
Lewisburg, WV 24901
304.647.6470



Greenbrier East High School was a campus style plan with six individual disconnected buildings. The county desired to construct a seventh disconnected structure to house 300 ninth grade students which would be moved to this facility to achieve a true middle school configuration in the county.

Included in this extensive renovation was replacement of the 35 year old HVAC system, to include a new unit ventilator system with hot and chilled water plants.



Greenbrier East High School



Additional HVAC Replacement Projects

The following projects were fully occupied during the HVAC replacement:

SIZE:
14,100 SF

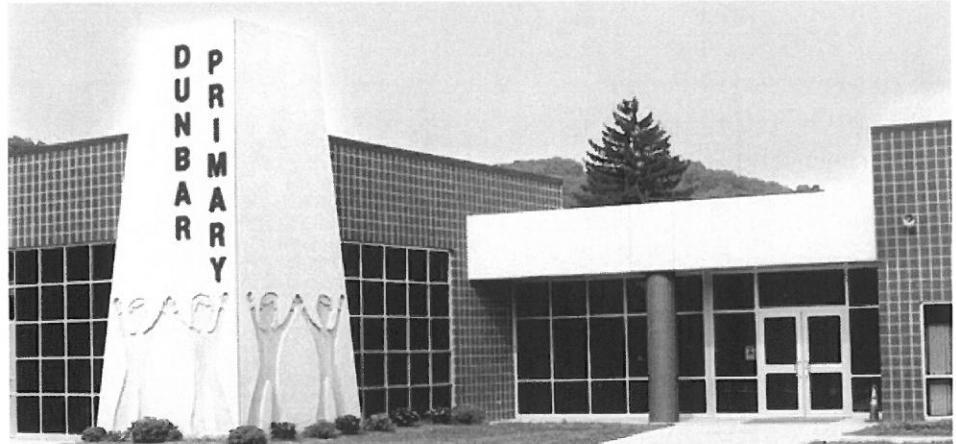
COMPLETION:
2001

NEW CONSTRUCTION:
14,100 SF

RENOVATIONS:
2,500 SF

CONTACT:
Dr. Ron Duerring
Superintendent
200 Elizabeth Street
Charleston, WV 25311
304.348.7732

Dunbar Primary School - Dunbar, West Virginia



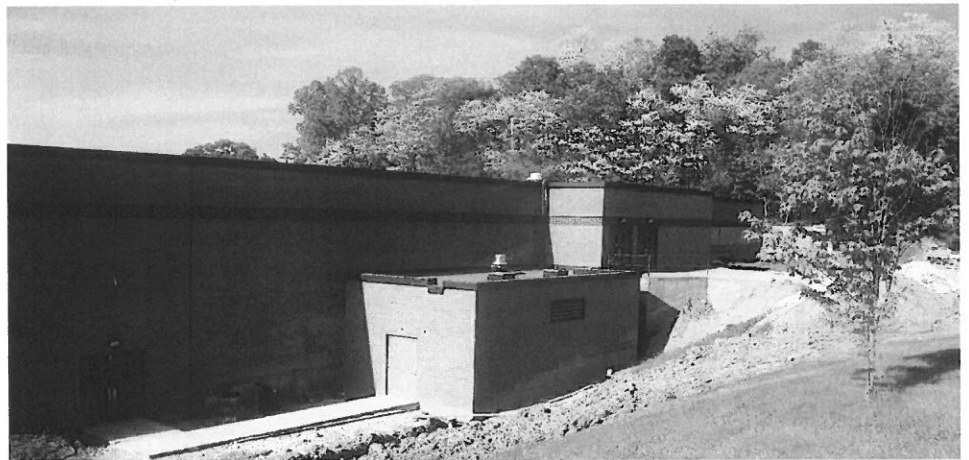
The school received additions and renovations along with extensive renovation of replacing of the existing HVAC system, to include a new unit ventilator system with hot and chilled water plants. The school was fully occupied during the HVAC project.

EXISTING:
59,240 SF

ADDITIONS:
616 SF

CONTACT:
Mr. William Smith
Superintendent
2850 5th Avenue
Huntington, WV 25702
304.528.5030

Spring Hill Elementary School - Huntington, West Virginia



HVAC renovation included new hot and chilled water systems and VAV rooftop air handling units with heat pipe heat recovery and critical reset ventilation controls in accordance with ASHRAE 62.

Wood County Justice Center



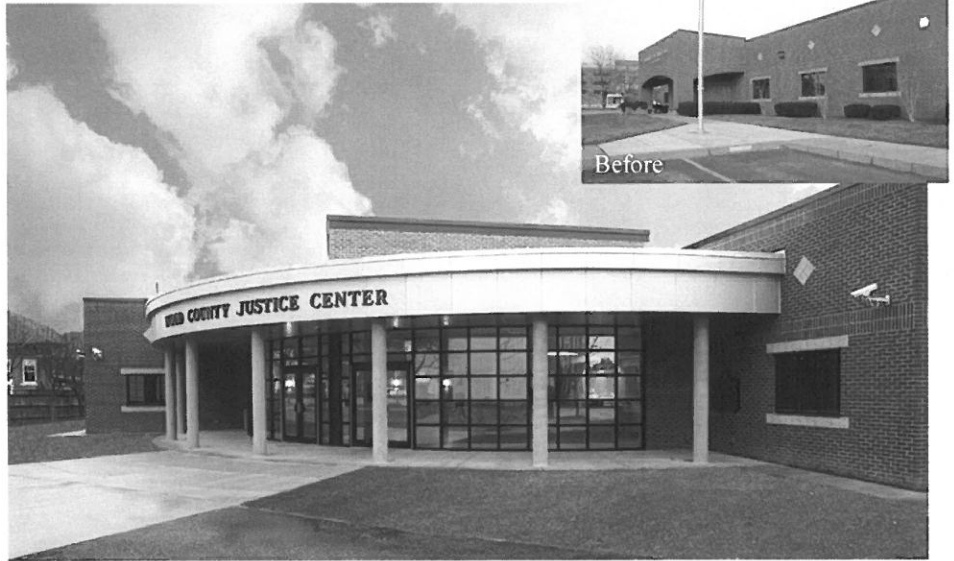
LOCATION:
Parkersburg, WV

SIZE:
32,000 SF

COMPLETION:
2011

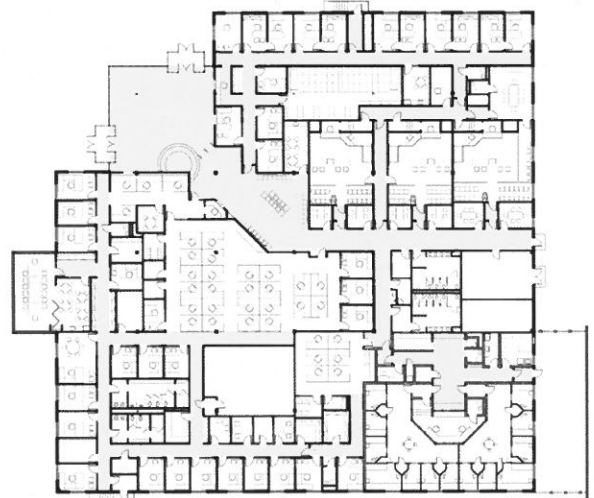
PROJECT COST:
\$5M

CONTACT:
Mr. Blair Couch
Commissioner
No. 1 Court Square
Suite 205
Parkersburg WV 26101
304.424.1978



This project was an extensive renovation of a 15 year old, 32,000 square foot, single story office building located in downtown Parkersburg, West Virginia. The building was purchased by the Wood County commission with the purpose of bringing together 3 government functions that had outgrown the 3 separate buildings that they occupied.

The renovated building consists of offices and 3 Courtrooms for the County's Magistrate Court system, public service windows for document pick-up and payment of fines, offices for the Sheriff's Department and Home Confinement and a 12-hour Inmate Holding Center.



Due to the building's new use, the interior was completely demolished leaving only the shell. The building's main entrance was relocated and redesigned to provide a new, more prominent identity to the building and to align with the new parking area created by the demolition of the adjacent existing magistrate court building. The old HVAC system was removed and replaced with a more energy efficient system and new, energy efficient lighting was installed. The project was designed around the U.S. Green Building Council's New Construction and Major Renovation Guidelines and is LEED Silver Certified.

Girl Scouts of Black Diamond Council

Volunteer Resource Center and Girl Zone/Urban Camp



LOCATION:
Charleston, WV

SIZE:
27,928 SF

COST:
\$5M

COMPLETION:
Fall 2013

CONTACT:
Beth Casey, CEO
GSBDC
321 Virginia Street, W.
Charleston, WV 25302
304.345.7722

AWARD:
2014 AIA Merit Award
West Virginia Chapter
*Achievement in
Architecture
in Interiors/Graphics*

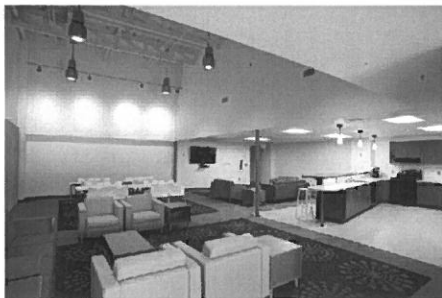


The New Girl Scouts of Black Diamond Council Volunteer Resource Center and Girl's Zone/Urban Camp will be located on the West Side of Charleston, WV. The 18,000 SF project will completely renovate and upgrade the existing buildings at 321 Virginia Street. The buildings were built in the early and mid-1900's, and were used as a car dealership showroom and parts building until 2008. The Girl Scouts of Black Diamond Council purchased the vacant buildings in 2011 with the intent of converting them into a girl-centered facility for members and a volunteer-enrichment center for program resources and training. The facility will include administrative offices, community/meeting gathering spaces, as well as a small hotel (or Urban Camp) for Girl Scouts visiting Charleston.

The main building will bring all of the operations of the Girl Scouts of Black Diamond Council together under one roof and on one level. This building will house a volunteer meeting room, employee office space, flexible conference spaces, and a retail shop. The Virginia Street façade of the existing facility will be removed, and more contemporary elements will be utilized to speak to each of the functions. The Girl's Zone/Urban Camp will reflect a residential tone with the use of a wood veneer, while the retail store will have floor to ceiling storefront. The storefront will be etched with scouting images, which will be lighted in the evening, allowing the entire façade to reflect the function of the building. The entry is accentuated with a more vertical element and signage, giving hierarchy to the various elements, while the office areas are recessed from the corner with smaller openings, and a vegetative planter to provide privacy.

Girl Scouts of Black Diamond Council

Volunteer Resource Center and Girl Zone/Urban Camp



The adjacent Girl's Zone/Urban Camp will have the feel of a hotel and will offer a place that visiting Girl Scouts can stay during a visit to Charleston. While the main entry to the building faces Virginia Street, the entry for the Girl Scouts will be at the rear of the building. A small addition was developed to create a "check-in" area similar to a hotel. Adjacent to the "check-in" area is a great room where troops can gather to cook, congregate, and hold meetings. The "hotel rooms" utilize a dormitory arrangement, while the finishes and furnishings will be more like a hotel room than a camp. The rear of the Girl's Zone/Urban Camp will reflect a more traditional camp environment, and includes an outdoor dining area and a fire pit.

With the mixed-use functions of retail, office, and residential, this unique project will be a vibrant addition to the emergent West Side community. The modern aesthetic of the facility will appeal to Girl Scouts and reflect the one of the Girl Scout's Journeys – "It's Your World – Change It!"

State Office Building #5, 10th Floor

Office of Technology



LOCATION:
Charleston, WV

SIZE:
22,000SF

COST:
\$3.7M

COMPLETION:
2010

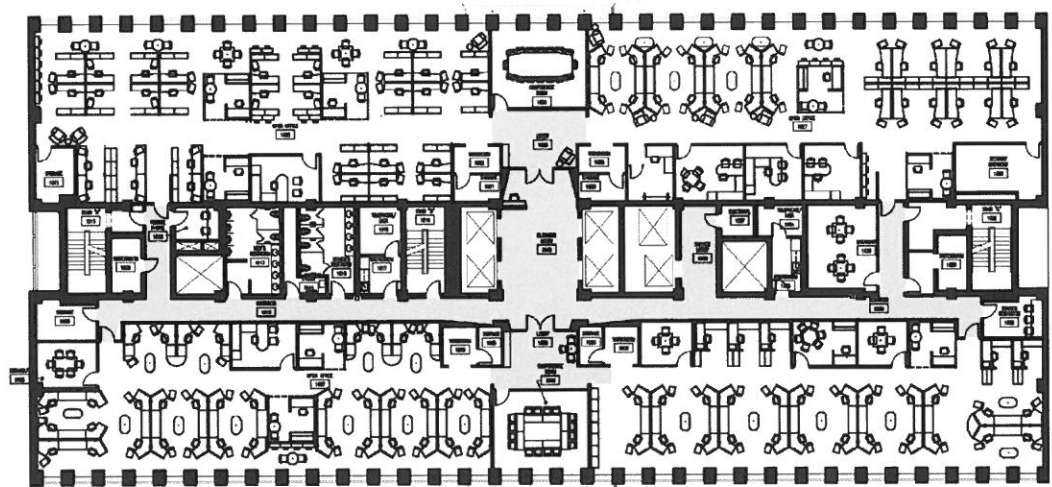
CONTACT:
Ross Taylor
Cabinet Secretary
Department of Admin.
Building 1, Room E119
Charleston, WV 25305
304.558.4331

AWARD:
2011 AIA Merit Award
West Virginia Chapter
*Achievement in
Architecture Interiors*



The renovation of the tenth floor of State Office Building #5 on the State of West Virginia Capitol Campus was recently completed for the Office of Technology. The renovation was designed to meet the United States Green Building Council's LEED for Commercial Interiors standard. To commence the project, ZMM conducted a detailed investigation of State Office Buildings 5, 6, & 7, which included recommendations for improvement of the facilities. The renovation of the 10th floor of Building #5 was the first major interior renovation project that responded to the recommendations. The renovation was technically intensive, and included demolition of the existing construction back to the building structure, as well as significant hazardous material abatement.

ZMM, working with the State of West Virginia General Services Division, the Real Estate Division, and the Office of Technology developed a strategy to renovate 22,000 SF of space to accommodate 137 employees. The design includes a mix of private and open office space, and responds to current workplace trends. The renovations include a low profile cable management system which maximizes the flexibility of the space. ZMM also developed the interior, furniture, fixture, and equipment design with significant coordination with the Office of Technology.



State Office Building #5, 10th Floor



To improve the opportunity for daylighting, office spaces have been “pulled-in” to the core of the building. This decision will allow for daylight to be introduced deep into the interior work areas, and will allow access to the daylight and views for all employees. The perimeter structural bays of the open office areas have a “coffered” ceiling. Ductwork for mechanical distribution is terminated at a bulkhead at the interior edge of the perimeter structural bay, allowing for more open volume and a more contemporary aesthetic.

The design of the 10th floor renovation also provided the opportunity to introduce a standard “transverse” core will be developed throughout State Office Buildings 5 & 6. The transverse core includes all of the major entry, meeting, and workroom functions. In addition to the office areas, the elevator lobby has been updated to create a consistent look and level of finish at the entry point to the Office of Technology.



Tucker County Courthouse Annex



LOCATION:
Parsons, WV

SIZE:
21,000 SF

COST:
\$4M

COMPLETION:
2013

CONTACT:
Mr. Joel Goughnour
Tucker Cty Commission
211 1st Street, Suite 307
Parsons, WV 26287
304.478.2866 Ext 207



The Tucker County Courthouse Annex is 4-story, 21,000 square foot building located adjacent to the Tucker County Courthouse in Parsons, WV. The annex sits on the same lot as the courthouse with the original jailor's residence between the two. The location of the existing jailor's residence, which is listed on the National Register, created a challenging planning dilemma. ZMM explored three options for developing the Courthouse Annex. The first option, the original concept proposed by Tucker County, anticipated connecting the Annex at multiple levels via a connector.

The problem with this approach was that the jailor's residence appeared like a building stuck within a larger complex, as well as the cost of the connector structure. ZMM also explored the option of relocating the jailor's residence, an approach that proved not feasible as the location of the facility justifies its historical quality. The final solution that was examined, and is currently being implemented, involved adding a separate elevator to the existing Tucker County Courthouse, and connecting the entry to the two facilities with an enclosed single level connector. This approach is the most efficient use of the County's resources, and also the best approach for the overall Courthouse site. The annex will house spaces for the Circuit Court, Circuit Clerk, Family Court, Magistrate Court, Prosecuting Attorney, County Commission, County Clerk, Community Corrections, and Probation Office.

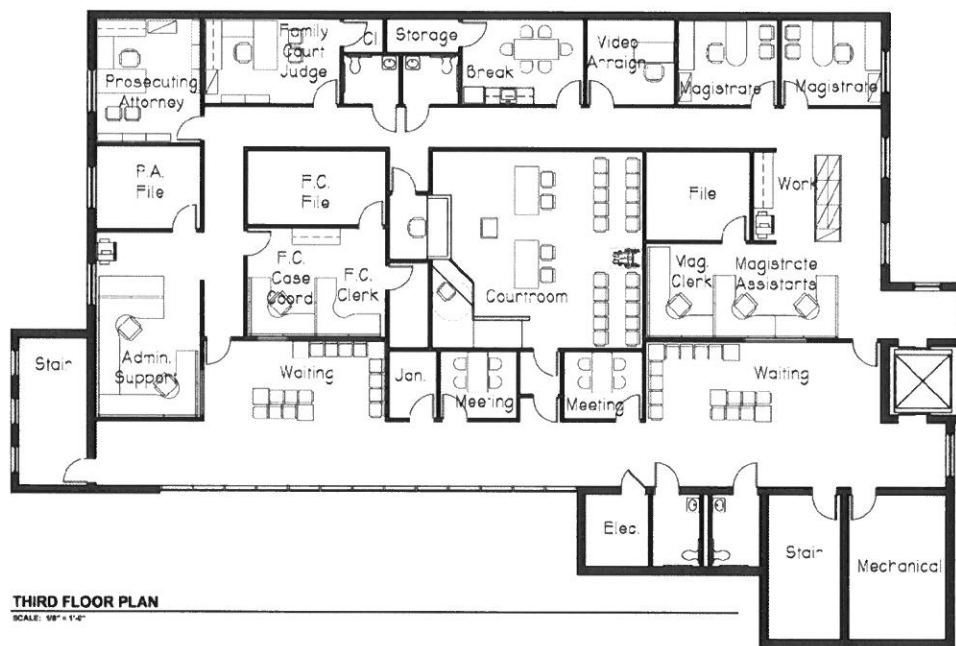
The Tucker County Sheriff, currently housed in leased space, will occupy the space that is being vacated in the original Courthouse.

Tucker County Courthouse Annex



The office and courtroom spaces occupy the upper three floors, with enclosed parking on the ground floor. The enclosed parking on the ground level will ensure that all occupied spaces are located outside of the floodplain.

The architecture of the annex is meant to complement the existing Romanesque and Flemish styles of the Courthouse and jailor's residence. The red brick, stone base, brick banding, arched openings, and sloped rooflines help to create a unified feel, while the wall of glass adjacent to the public corridor that overlooks the courthouse brings a touch of modernity to the campus and provides natural light to the interior of the building.



St. Albans High School

Kanawha County Schools



LOCATION:
St. Albans, WV

SIZE:
216,500 SF

COMPLETION:
2003

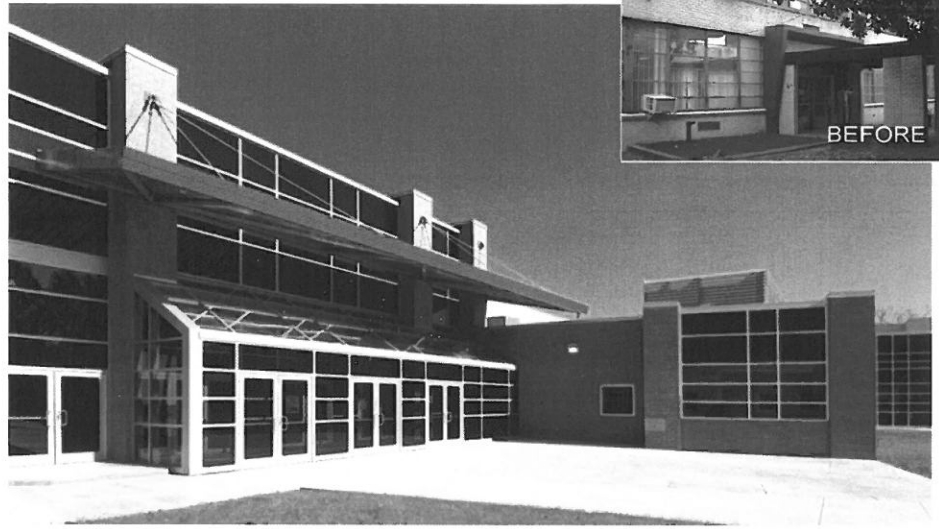
COST:
\$24M

CONTACT:
Dr. Ron Duerring
Superintendent
200 Elizabeth Street
Charleston, WV 25523
304.348.7732

AWARDS:
Impact on Learning Award
Effective Transformation

Education Design Showcase
Outstanding Building Design

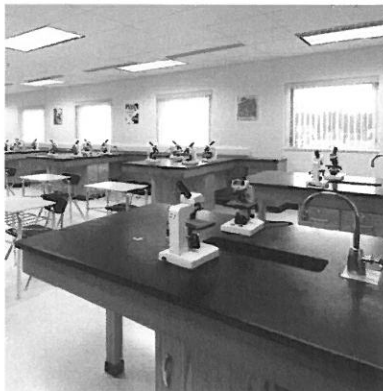
American School & University
Outstanding Building Design



One outstanding feature of the completed renovation of St. Albans High School is its unique, inviting physical entryway and the aesthetically pleasing and functional commons/cafeteria area. The commons is a visual focal point of the school creating a natural flow from the front entrance, through the commons to the outside assembly/instructional area, it also serves as a connecting hub between the academic spaces and the physical education and auditorium areas.

Significant green space was retained and enhanced which providing an inviting and safe approach to the high school building. An outside amphitheater, located adjacent to the music and theater departments, provides ample space for music and drama productions as well as a gathering space for students. In response to the students need for more "outside living space" the rear dining plaza was created. It has a visual impact on the interior and provides a flexible learning environment for the students and educators.

The addition of an auxiliary gym, renovations to the auditorium complex, a new media center and other additions and improvements allow spaces for more extensive use by the community. Renovations to the auditorium resulted in a space that is educationally functional and is a source of pride for the students and the entire community.



St. Albans High School



Instructional spaces have been designed to be flexible, adaptable and accommodating for the more active, student oriented instructional programs and methods of the district. Classroom and other spaces are bright and welcoming for students and staff and appropriate space and equipment are provided to allow for the efficient and effective delivery of program objectives.

Responding to concerns from students, staff and the community, and due to the condition of existing science facilities, science wing was completely replaced with modern, functional and flexible space and equipment.

Provisions for new and emerging technologies were greatly enhanced throughout the building. The new media center is the central hub for technology and with the inclusion of an appropriate infrastructure, providing flexibility needed for the technology of the future. St. Albans High School was completed during the summer of 2003 and was occupied by the student body at the beginning of the 2003-2004 school year.



Dow Plant - Headquarters Building



LOCATION:
So. Charleston, WV

SIZE:
127,200 SF

COMPLETION:
2003

COST:
\$6.5M

CONTACT:
Mr. Jim Guidirini
Plant Manager
437 MacCorkle Ave.
So. Charleston, WV
25303
304.747.3418



The existing space was converted to an open office environment with work stations for 70 plant personnel on the second floor. The first floor was redesigned to contain locker / shower facilities, a lunch room and the emergency operations center for the South Charleston plant. The addition contains the visitors entrance and conference facilities on the second floor.

The exterior window-wall construction in the existing building was replaced with new energy efficient windows and a solid insulated EIFS clad wall system. Also, a new energy-efficient HVAC system was installed in the building.



Bridgemont Community and Technical College

Davis Hall Renovation



LOCATION:
Montgomery, WV

SIZE:
77,215 SF

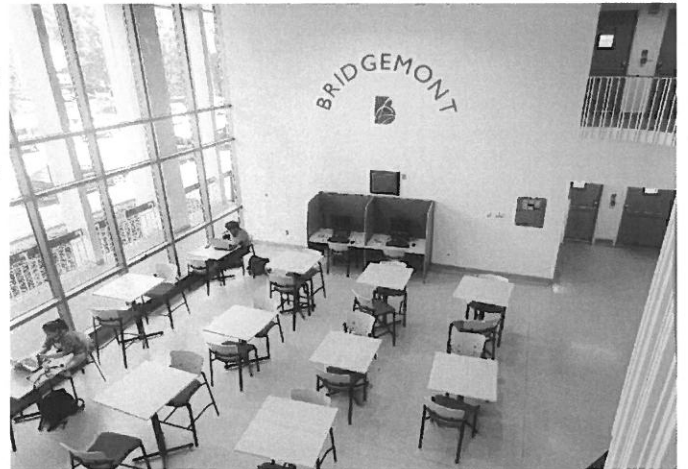
COMPLETION:
Summer 2012

COST:
\$4M

CONTACT:
Dr. Jo Harris, President
619 2nd Avenue
Montgomery, WV 25136
304.734.6600



ZMM was selected by Bridgemont Community and Technical College and the West Virginia Community and Technical College System to provide professional architectural and engineering design services for the Renovation of Davis Hall in Montgomery. Davis Hall is a 77,215 SF classroom and laboratory facility that was constructed in 1970 for WVU-Tech. The exterior



of the facility consists of architectural pre-cast concrete panels and a curtain wall system. The interior includes an open two story atrium, a large auditorium, and five levels of office and classroom space that is constructed of demountable partitions.

Prior to commencing the design effort, ZMM completed a thorough assessment of the facility. The assessment revealed significant life safety concerns that had not been previously identified, including the use of non-plenum rated plastic insulated wiring throughout the return air plenums, mechanical units located above ceilings in exit stairs, and a lack of adequate fresh air for building occupants. As part of this initial assessment, ZMM assisted in developing a scope of work for the current project, as well as a long range plan for future improvements to Davis Hall.

The scope of the current project includes life safety upgrades (replace non-plenum rated wiring, new fire alarm system), improvements to the building envelope (curtain wall replacement and re-roofing), hazardous material abatement, mechanical improvements (boiler and chiller replacement, outdoor air ventilation system replacement), and interior improvements (replace ceilings and lighting, upgrade furnishings).



**Major General Allen Tackett
Retired Adjutant General – West Virginia National Guard**

Description: Testimonial / ZMM Architects & Engineers

“When you look at the design work and the construction that was done on our facilities there is none better in the United States of America so why wouldn't we use local talent and local companies to do that. I don't think anybody could have done a better job for the West Virginia National Guard than what ZMM and our other people have done in constructing and building the National Guard into the 21st Century.

We've built nearly a billion dollars worth of facilities in the State of West Virginia and ZMM was one of our major Architects through all of that construction and not one project did we have problems with, or have anything bad to say and their all well built. Their all built to last for years and years and years, into the future. All will provide excellent facilities for men and women who are serving in the West Virginia National Guard for centuries to come. The facilities built were built in a way to where the communities get the maximum benefit from the tax payer's dollars that paid for those projects, and your design and set up has made those economic tools. When you look at the Armories that we've built, or the Armed Forces Reserve Centers, they have become economic tools for those communities and it was just fabulous the way we worked together as a team to make sure everything got done on time. The things that you all went out of your way to do to make sure that we got the kind of buildings that we wanted was far and above the call of duty.

I would recommend ZMM above any Architect that I have ever worked with. Your work, your dedication to your customer, and bringing a project in on time and in budget is probably the best I have ever seen.”

References



WV State Office Building #5, 10th Floor

Office of Technology - Renovation
Cabinet Secretary Ross Taylor
Department of Administration
1900 Kanawha Blvd., E.
Charleston, WV 25305
304.558.4331

WV Army National Guard

CFMO Expansion
COL David Shafer
1707 Coonskin Drive
Charleston, WV 25311
304.561.6539

Charleston EDGE Complex

David Molgaard, City Manager
City of Charleston
501 Virginia Street, E. - Room 101
Charleston, WV 25301
304.348.8014

Bridgemont CTC - Davis Hall

Dr. Jo Harris, President
619 2nd Avenue
Montgomery, WV 25136
304.734.6600

WV State Office Buildings #5, 6, & 7

Greg Melton, Director of General Services
Capitol Complex Building
Building 1, Room MB-60
1900 Kanawha Blvd, E.
Charleston, WV 25305
304.558.2317

Girl Scouts of Black Diamond Council

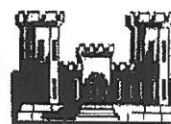
Volunteer Resource Center & Girl Zone/Urban Camp
Beth Casey, CEO
321 Virginia Street, W.
Charleston, WV 25302
www.bdgsc.org
304.345.7722

Kanawha County Schools

St. Albans High School - Renovation
Dr. Ron Duerring, Superintendent
200 Elizabeth Street
Charleston, WV 25523
304.348.7732



**WEST VIRGINIA ARMY NATIONAL GUARD
CONSTRUCTION & FACILITIES MANAGEMENT OFFICE**



1707 Coonskin Drive
Charleston, West Virginia 25311-1085
Phone: 304-561-6339 Fax: 304-561-6458 DSN: 623-6339

15 April 2009

WV Higher Education Policy Commission
Chief Procurement Officer
Richard Donovan
1018 Kanawha Blvd. East
Suite 700
Charleston, WV 25301

Dear Mr. Donovan,

The AECOM/ZMM Team has been assisting the West Virginia Army National Guard with the design of a 285,000 SF addition to the Robert C. Byrd Regional Training Institute (RTI) at Camp Dawson, near Kingwood, West Virginia. The new JITEC (Joint Interagency Training and Education Center) will include highly flexible educational facilities that will serve a dual use in the case of a state wide or national emergency. These facilities will include sophisticated data systems, video walls, and also incorporate a high level of electronic security.

The AECOM/ZMM Team has exceeded our expectations, delivering a high level of local expertise, complimented by the knowledge base of a large design firm. The Team's commitment to design quality has been demonstrated through the development of a site strategy that evokes a campus, while maintaining all of the programmed spaces in one facility. The JITEC design balances the need to re-orient the campus while also complimenting the existing RTI. The technical ability of the AECOM/ZMM Team has also been demonstrated through the design of redundant power and HVAC systems, as well as through the examination of various building components to meet the requirements of LEED Silver.

The AECOM/ZMM Team has been very responsive and has done an excellent job of communicating the West Virginia Army National Guard's vision for this project. Additionally, the design team has provided these services within a compressed timeframe to meet our requirements. Please contact me if I can provide any additional information about our experience with the AECOM/ZMM Team.

MELVIN L. BURCH
Brigadier General
West Virginia Army National Guard
Assistant Adjutant General



girl scouts
of black diamond

March 18, 2013

To Whom It May Concern

The Girl Scouts of Black Diamond Council has had the opportunity to work with ZMM Architects and Engineers in a Design-Build plan for our renovation of building on Virginia and Maryland Streets in Charleston, West Virginia.

Girl Scouts of Black Diamond
PO Box 507
Charleston, WV 25322
304-345-7722
T: 800-756-7616
F: 304-345-6427
www.bdpsc.org

Adam Krason, and his team, Marie McCauley, Mary Jo Cleland, and Jill Watkins, met with staff and volunteers to discover our needs, and then develop a Girl Scout and Volunteer Resource, and a Girl Zone, an Urban Camp for Black Diamond, the first of its kind in the United States. They were very attentive to our needs, and were willing to visit and revisit several aspects of the "vision" we had for our membership. Each member of the team offered suggestions based on our needs and resources. We would share with the ZMM team our ideas, and they created the center we envisioned.

We met with ZMM to discuss the flow and movement of people in the new building and the ideas we had for both a volunteer resource center and Girl Scout Headquarters. We shared operating units configurations, staff flow patterns, conference needs, staff organizational charts, and space required for various operations. As we walked through this process the ZMM staff would ask questions, share work flow ideas, and offer ideas for a quality design. They were helpful, very creative, and always willing to listen throughout the process.

We began the renovation of the site in January 2013, and with each step we have met with ZMM and they have carefully reviewed the progress. They have notified us regarding each phase of the process.

I am pleased and honored to offer a recommendation for ZMM Architects and Engineers. This is a very professional firm, and the creative talents of the group are amazing.



Susan Thompson
Chief Executive Officer



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

Solicitation

NUMBER
DEFK14023

PAGE
1

ADDRESS CORRESPONDENCE TO ATTENTION OF:
TARA LYLE 304-558-2544

VENDOR

RFQ COPY
 TYPE NAME/ADDRESS HERE

SHIP TO

DIV ENGINEERING & FACILITIES
 ARMORY BOARD SECTION
 1707 COONSKIN DRIVE
 CHARLESTON, WV
 25311-1099 304-341-6368

DATE PRINTED
04/07/2014

BID OPENING DATE: 05/15/2014 BID OPENING TIME 01:30PM

LINE	QUANTITY	UOP	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
0001	1	JB		906-00-00-001		
ARCHITECT/ENGINEERING SERVICES, PROFESSIONAL EXPRESSION OF INTEREST (EOI) THE WEST VIRGINIA PURCHASING DIVISION, FOR THE AGENCY, DIVISION OF ENGINEERING & FACILITIES, WV ARMY NATIONAL GUARD, IS SOLICITING EXPRESSIONS OF INTEREST FOR ARCHITECTURAL AND ENGINEERING SERVICES TO RENOVATE THE HEATING, VENTILATION AND AIR CONDITIONING SYSTEM AT THE WILLIAMSTOWN AASF1 FACILITY, PER THE ATTACHED DOCUMENTATION. ATTACHMENTS INCLUDE: DEFK14023 EXPRESSION OF INTEREST INSTRUCTIONS TO VENDORS SUBMITTING BIDS GENERAL TERMS AND CONDITIONS CERTIFICATION AND SIGNATURE PAGE PURCHASING AFFIDAVIT VENDORS SHOULD PROVIDE ONE (1) ORIGINAL PROPOSAL AND TWO (2) CONVENIENCE HARD COPIES AND ONE (1) SUBMISSION ON CD-ROM.						

SIGNATURE <i>ARFK</i>	TELEPHONE 304.342.0159	DATE 5.14.14
TITLE PRINCIPAL	FEIN 55-0676608	ADDRESS CHANGES TO BE NOTED ABOVE

WHEN RESPONDING TO SOLICITATION, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'

CERTIFICATION AND SIGNATURE PAGE

By signing below, I certify that I have reviewed this Solicitation in its entirety, understand the requirements, terms and conditions, and other information contained herein; that I am submitting this bid or proposal for review and consideration; that I am authorized by the bidder to execute this bid or any documents related thereto on bidder's behalf; that I am authorized to bind the bidder in a contractual relationship; and that to the best of my knowledge, the bidder has properly registered with any State agency that may require registration.

Zmm, Inc.
(Company)

ARV
(Authorized Signature)

ADAM R. KRASON, PRINCIPAL
(Representative Name, Title)

304.342.0159 304.345.8144
(Phone Number) (Fax Number)

5.14.14
(Date)

STATE OF WEST VIRGINIA
Purchasing Division

PURCHASING AFFIDAVIT

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

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

DEFINITIONS:

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

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

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

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

WITNESS THE FOLLOWING SIGNATURE:

Vendor's Name: Zmm, Inc.

Authorized Signature: [Signature] Date: 5.14.14

State of West Virginia

County of Kanawha, to-wit:

Taken, subscribed, and sworn to before me this 14 day of MAY, 2014

My Commission expires April 16, 2023

AFFIX SEAL HERE

NOTARY PUBLIC [Signature]
Purchasing Affidavit (Revised 07/01/2012)

