

Purchasing Divison 2019 Washington Street East Post Office Box 50130 Charleston, WV 25305-0130

State of West Virginia **Centralized Expression of Interest** 02 - Architect/Engr

Proc Folder: 629660

Doc Description: EOI: A/E Services for Various GSD Maintenance Projects

Proc Type: Central Contract - Fixed Amt

Version Date Issued Solicitation Closes Solicitation No 0211 GSD2000000003 2019-10-04 2019-10-18 CEO 13:30:00

BID RECEIVING LOCATION

BID CLERK

DEPARTMENT OF ADMINISTRATION

PURCHASING DIVISION

2019 WASHINGTON ST E

CHARLESTON

WV 25305

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ZMM, Inc. (dba ZMM Architects and Engineers)
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Tharleston, West Virginia 25302
304-342-0159

RECEIVED

2019 OCT 23 PM 12: 30

W PURCHASING

FOR INFORMATION CONTACT THE BUYER

Melissa Pettrey (304) 558-0094

melissa.k.pettrey@wv.gov

FEIN# 55-0676608 DATE 10-22-2019

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

Page: 1

FORM ID: WV-PRC-CEOI-001



Purchasing Divison 2019 Washington Street East Post Office Box 50130 Charleston, WV 25305-0130

State of West Virginia Centralized Expression of Interest 02 - Architect/Engr

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BID CLERK

DEPARTMENT OF ADMINISTRATION

PURCHASING DIVISION

2019 WASHINGTON ST E

CHARLESTON

25305 W

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VENDOR *

Vendor Name, Address and Telephone Number:

ZMM, Inc. (dba ZMM Architects and Engineers)

222 Lee Street West Charleston West Virginia 25302

FOR INFORMATION CONTACT THE BUYER

Melissa Pettrey (304) 558-0094

melissa.k.pettrey@wv.gov

FEIN # 55 - 0676608 DATE 10-22-2019

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Page: 1

FORM ID: WV-PRC-CEOI-001

ADDENDUM ACKNOWLEDGEMENT FORM SOLICITATION NO.: GSD2000000003

Instructions: Please acknowledge receipt of all addenda issued with this solicitation by completing this addendum acknowledgment form. Check the box next to each addendum received and sign below. Failure to acknowledge addenda may result in bid disqualification.

Acknowledgment: I hereby acknowledge receipt of the following addenda and have made the necessary revisions to my proposal, plans and/or specification, etc.

(Chec	k th	e bo	x next to each addendum	received	l)	
	Ġ	(]	Addendum No. 1	[]	Addendum No. 6
	[]	Addendum No. 2	[]	Addendum No. 7
	[]	Addendum No. 3	[]	Addendum No. 8
	[]	Addendum No. 4]]	Addendum No. 9
	[]	Addendum No. 5	I]	Addendum No. 10

Addendum Numbers Received:

I understand that failure to confirm the receipt of addenda may be cause for rejection of this bid. I further understand that that any verbal representation made or assumed to be made during any oral discussion held between Vendor's representatives and any state personnel is not binding. Only the information issued in writing and added to the specifications by an official addendum is binding.

Zmm Tre (dba Zmm Architects and Engineers) Company

Authorized Signature

10-22-2019

Date

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

DESIGNATED CONTACT: Vendor appoints the individual identified in this Section as the Contract Administrator and the initial point of contact for matters relating to this Contract.
ACRIA, PRINCIPAL
(Name, Title) Haam R. Krason, AIA, LEED AP, Principal (Printed Name and Title)
(Address)
304-342-0159 304-345-8144 (Phone Number) / (Fax Number)
(email address)
CERTIFICATION AND SIGNATURE: By signing below, or submitting documentation through wvOASIS, I certify that I have reviewed this Solicitation in its entirety; that I understand the requirements, terms and conditions, and other information contained herein; that this bid, offer or proposal constitutes an offer to the State that cannot be unilaterally withdrawn; that the product or service proposed meets the mandatory requirements contained in the Solicitation for that product or service, unless otherwise stated herein; that the Vendor accepts the terms and conditions contained in the Solicitation, unless otherwise stated herein; that I am submitting this bid, offer or proposal for review and consideration; that I am authorized by the vendor to execute and submit this bid, offer, or proposal, or any documents related thereto on vendor's behalf; that I am authorized to bind the vendor in a contractual relationship; and that to the best of my knowledge, the vendor has properly registered with any State agency that may require registration.
(Company) ADAM R. KRYSON, PRINCIPAL (Authorized Signature) (Representative Name, Title)
Adam R. Krason AIA LEFD AP, Principal (Printed Name and Title of Authorized Representative)

10-22-2019 (Date)

304-342-0159 304-345-8144 (Phone Number) (Fax Number)

STATE OF WEST VIRGINIA Purchasing Division

PURCHASING AFFIDAVIT

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

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

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

DEFINITIONS:

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

"Employer default" means having an outstanding balance or liability to the old fund or to the uninsured employers' fund or being in policy default, as defined in W. Va. Code § 23-2c-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 exceed five percent of the total contract amount.

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

WITNESS THE FOLLOWING SIGNATURE:

Lisa E Bowles

ZMM, Inc. 222 Lee Street, West Charleston, WV 25302

My Commission Expires Oct. 6, 2023

Vendor's Name: Zmm, Inc. Co	Iba IMM Architects and Engineer
Authorized Signature:	Date: 10-22-2019
State of West Virginia	
County of Kanawha, to-wit:	
Taken, subscribed, and sworn to before me this day	y of October, 20/9.
My Commission expires	
AMFIX:SEALUHERE:::::::::::::::::::::::::::::::::::	NOTARY PUBLIC Lina E. Bawles

Purchasing Affidavit (Revised 01/19/2018)

ZMM ARCHITECTS ENGINEERS

October 22, 2019

Ms. Melissa Pettrey, Senior Buyer
Department of Administration, Purchasing Division
2019 Washington Street, East
P.O. Box 50130
Charleston, West Virginia 25305-0130

Subject: Proposal to Provide Architecture and Engineering Services for Various GSD Maintenance Projects

Dear Ms. Pettrey:

ZMM Architects and Engineers is pleased to submit the attached proposal to demonstrate our experience and our qualifications to provide professional architecture, engineering, and construction phase services for various GSD Maintenance Projects, including:

- Building 11 Concrete Wall Repair
- Building 84 (Cornerstone Building) HVAC Repair / Air Balancing
- Building 88 Rooftop Unit Replacement and Integration with Building Automation System (BAS)
- Building 97 Investigate and Repair Uneven Floor Slab Settlement

While the first three buildings are located in the Charleston area, Building 97 is located in Williamson, WV – all areas where ZMM regularly provides services. Additionally, two of the projects (Building 11 and Building 88) have previously been designed under another contract. We our confident that our team can add value to these projects by building off the work already completed, evaluating and improving the design and constructability, and by assisting with the bidding and providing robust construction phase services.

Established in 1959, ZMM is a Charleston based, full service A/E firm, and is noted for design excellence and client focus. Our integrated design approach makes ZMM unique among organizations of our size, and our ability to provide comprehensive design services has made us a trusted resource for complex repair/renovation projects throughout West Virginia. For the Various GSD Maintenance Projects, ZMM would provide all required services – architecture, structural engineering, mechanical engineering, and electrical engineering – utilizing our inhouse team, who all have previous experience collaborating with the GSD. We are confident that ZMM Architects and Engineers is qualified to provide professional design services for these repair projects for the following reasons:

Experience. ZMM has renovated and expanded buildings throughout the region, and has a history of providing services on improvement projects to our state's landmark buildings, including the West Virginia State Capitol, the Culture Center, the Charleston Coliseum and Convention Center, State Office Buildings 5, 6, &7, and the Clay Center.

In addition to our renovation experience, ZMM has provided services on multiple projects for the State of West Virginia General Services Division (GSD). These projects have varied from large renovation projects, such as the improvements to the State Office Buildings (noted above), to small investigative and repair projects. We commit to staffing these repair projects

with team members who have recently delivered similar projects, and who have experience working with GSD.

Quality. ZMM has a history of providing high quality design services on renovation and improvement projects. In fact, ZMM's commitment to design quality has been recognized by the American Institute of Architects West Virginia Chapter with eighteen design awards in the last decade – an achievement unrivaled in West Virginia.

Talent. With forty local employees ZMM provides an integrated design approach by delivering all building related design services including architecture, engineering (structural, mechanical, and electrical), interior design, and construction administration in-house. ZMM's team includes seven registered architects, nine professional engineers (structural, mechanical, and electrical), interior and lighting designers, and construction administrators. Our architects, engineers, and designers are highly qualified, and have worked together to deliver projects with similar scope and complexity.

Proximity. All the architects and engineers that will be working on these projects will be located out of one office in Charleston. ZMM has a history of providing design solutions for repair/renovation projects in the Charleston area, and throughout southern West Virginia.

Thank you for taking the time to review the attached proposal, which has been formatted as requested. Additionally, please visit our website at www.zmm.com to see the full range of projects that we have designed, and to learn about working with ZMM from a client's perspective. Thank you for your consideration for this important assignment.

Respectfully submitted,

ZMM, inc.

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

Principal

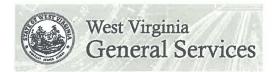
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 - General Service Division Projects
 - HVAC Experience
 - Renovation Experience
- 5. Client References



Various GSD Maintenance Projects Concepts and Methods of Approach



Project Understanding

The Request for Expression of Interest indicates that the State of West Virginia General Services Division (GSD) intends to undertake the following projects:

- Building 11 Concrete Wall Repair
- Building 84 (Cornerstone Building) HVAC Repair / Air Balancing
- Building 88 Rooftop Unit Replacement and Integration with Building Automation System (BAS)
- Building 97 Investigate and Repair Uneven Floor Slab Settlement

With the exception of Building 97, which is located in Williamson, all of the projects are located in the Charleston area. The scope of the proposed work is diverse, and includes concrete repair, HVAC equipment replacement and air balancing, as well as floor slab settlement investigation and repair. ZMM has significant experience providing services on similar projects, which is outlined as a response to the four stated Goals/Objectives below.

As a full-service design firm, ZMM Architects and Engineers is qualified to provide services on maintenance and renovation projects. Our in-house team includes architects and engineers, including as structural, mechanical, electrical, and plumbing engineers, as well as construction administrators.





For the Various GSD Maintenance projects, ZMM Architects and Engineers has assembled a project team that is capable of meeting the varied project requirements, and includes many of the same team members who have previously collaborated with General Services. Please note that ZMM is proposing to provide all design services in-house without the use of any consultants. We are confident that this is the most efficient manner to provide design services for the project, and that this team provides the GSD with the best opportunity for a successful project. The full design team will include:

Taam	Member	•
104111		

ZMM Architects & Engineers

Role

Principal/PM

AP

QA/QC

Architect

Specifications

Proposed Staffing

Adam R. Krason, AIA, LEED-

David Ferguson, AIA Rodney Pauley, AIA Mark Epling, AIA



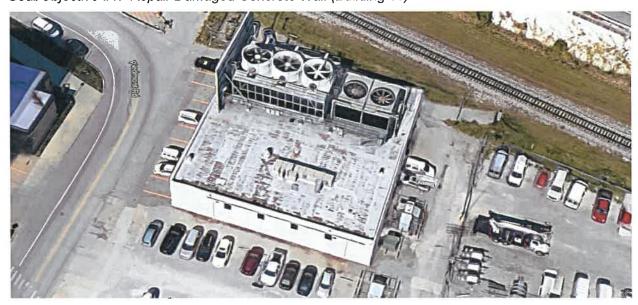
Engineering Principal/PM Bob Doeffinger, PE
Structural Engineer Mike White, PE
Electrical Engineer Scot Casdorph, PE
Mechanical Engineers Sam Butzer, PE
John Pruett, PE

James Lowry, PE

Construction Admin. Falena Perry
CA Assistant Amy Rhodes

Below, please find additional information regarding our proposed strategy to address your goals/objectives to successfully deliver the projects:

Goal/Objective #1: Repair Damaged Concrete Wall (Building 11)



Plans and specifications have previously been developed to repair a damaged cast concrete wall, which is located on an elevator at the Central Chilled Water Plant. ZMM would recommend building off the existing effort by providing quality assurance and constructability reviews of the existing documents. Once the review was completed, and any improvements implemented, ZMM would assist the owner through the bidding process, and by providing robust construction phase services.

ZMM is currently working on a similar engagement where we are assisting the current owners and operators of the Charleston Town Center Mall as they develop an appropriate solution to develop a new exterior enclosure once the former Sears store is demolished. Our role has included reviewing previously completed wall sections and recommending improvements to ensure the quality of the project for the owner.

At the State of West Virginia Capitol Complex, ZMM has assisted with a variety of wall repairs on State Office Buildings 5, 6, & 7, including cleaning, re-caulking, and repairing damaged concrete panels.

Goal/Objective #2: HVAC System Evaluation and Improvements (Building 84)



ZMM will assist the General Services Division by conducting an evaluation of the Building 84 HVAC system. The intent of the project is to recommend improvements that will allow for better HVAC control, system balancing, and improved air distribution. The project will be completed while the building remains operational.

In addition to our ability to provide comprehensive design services, ZMM has demonstrated expertise in the evaluation and improvement of mechanical systems – which often occur in occupied buildings. ZMM recently assisted the GSD by providing HVAC investigative and evaluation services in the Main Capitol Building. Relevant experience renovating mechanical systems in an operational office building include various improvements to the Lottery Headquarters, as well as improvements to State Office Buildings 5 & 6. Additionally, our recent experience providing a new central plant for the Charleston Coliseum and Convention Center – which remained operational through more than 3 years of construction, demonstrates our ability to develop solutions that minimize the impact on building occupants. Please refer to the relevant experience section of this EOI for additional HVAC improvement projects.

Goal/Objective #3: HVAC Renovation and Building Automation System (Building 88)



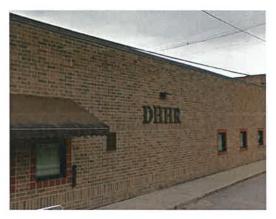
As stated in Goal/Objective #1 above, ZMM will help to add value to the project by reviewing and recommending improvements to previous evaluations, plans, and bidding documents. Since it is a goal for the building to remain operational while equipment is replaced, ZMM would develop a phasing plan to ensure that any equipment that is removed is replaced and operational the same day. This will require close coordination with the contractor.



ZMM has significant experience replacing HVAC systems in critical facilities such as hospitals and correctional centers, which must remain operational through the construction.

Goal/Objective #4: Slab Settlement (Building 97)

ZMM will work with GSD to investigate and develop recommendations to repair floor slab settlement that is creating tripping hazards. ZMM is currently assisting the Wood County Commission with a similar project, where the floor slab has settled due to the placement of a high-density file storage system. The investigation includes a slab and soil boring, while the recommended repairs will likely include the utilization of an engineered expanded foam. ZMM also recently completed a similar project for New River Community and Technical College in Greenbrier



County. In that case, due to poor soil compaction, the slab and flooring were removed and replaced.

Experience

Our team has significant repair/renovation design experience. This experience has led us to be entrusted with designing improvements to some of West Virginia's most prominent buildings, including the Charleston Coliseum and Convention Center, the Culture Center, the Clay Center, and the State Capitol. Below, please find a list of relevant projects (projects designated with a * remained operational throughout the renovation process):

- Charleston Coliseum and Convention Center Improvements*
- Clay Center for the Arts & Sciences Various Improvements*
- State Capitol Building Roof Replacement*
- West Virginia Lottery Building (Renovation of Floors 7, 8, 9)*
- Christ Church United Methodist Education Wing Renovation, Charleston, WX*
- Girl Scouts of Black Diamond Council Headquarters (Renovation), Charleston, WV
- Davis Hall Improvements, Montgomery, WV*
- Wood County Justice Center/Judge Black Annex, Parkersburg, WV
- WVARNG CFMO Expansion, Charleston, WV
- Prosperity Center (Renovation of Charleston Transit Company) for Goodwill of Kanawha Valley*
- West Virginia Culture Center Grand Hall Re-Lighting*
- West Virginia Capitol Complex Buildings 5, 6, & 7 Various Improvements*
- Southside Elementary/Huntington Middle School (Cammack Renovation), Huntington, WV
- Houston Coal Company Store Restoration, Kimball (McDowell County), WV

Summary

ZMM possesses the relevant design experience (including previous investigative, repair, and renovation experience), recent GSD experience, and an approach to meeting your goals and objectives to ensure the successful delivery of the Various GSD Maintenance Projects. Our team's previous experience working on similar projects, our commitment to design quality, and our demonstrated experience with project budget and schedule control makes us the right partner for the GSD for this engagement.



About ZMM Architects & Engineers



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.



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 seven 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.

SERVICES

Pre-Design

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

Design

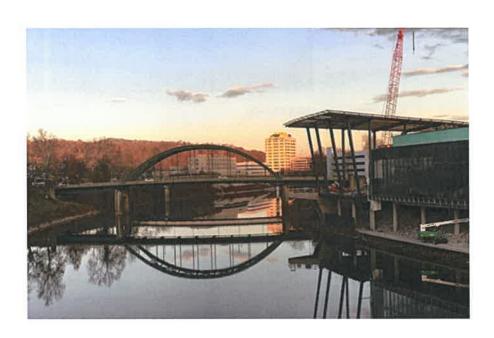
Architectural Design Sustainable Design Interior Design Lighting Design Landscape Architecture

Engineering

Civil
Mechanical
Electrical
Structural
Net Zero Buildings
Energy Consumption Analysis

Post Design

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



Award Winning Design



2019

AIA West Virginia Chapter: Honor Award AIA West Virginia Chapter: Citation Award

AIA West Virginia Chapter: People's Choice Award

Charleston Coliseum & Convention Center

Charleston, West Virginia

2018

AIA West Virginia Chapter: Citation Award

Unbuilt Project
Charleston EDGE

Charleston, West Virginia

2017

AIA West Virginia Chapter: Merit Award

Achievement in Architecture
Explorer Academy

Huntington, West Virginia

AIA West Virginia Chapter: Merit Award

Achievement in Sustainability
Logan - Mingo Readiness Center

Holden, West Virginia

2016

AIA West Virginia Chapter: Merit Award

Achievement in Architecture in Interior Design

Christ Church United Methodist

Charleston, West Virginia

AlA West Virginia Chapter: Merit Award
Achievement in Architecture
Gauley River Elementary School

Craigsville, West Virginia

2015

AIA West Virginia Chapter: Honor Award

Achievement in Architecture in Sustainable Design

Edgewood Elementary School

Charleston, West Virginia











Award Winning Design



AIA West Virginia Chapter: Merit Award Achievement in Architecture

Kenna Pk-5 School Kenna, West Virginia

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











Adam R. Krason, AIA, LEED AP, ALEP





Role Principal

Professional Registrations

Registered Architect (WV, OH, KY, VA, MD, NJ) LEED Accredited Professional Accredited Learning Environment 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

Charleston Civic Center, Charleston, WV

Mr. Krason served as principal-in-charge of the expansion and renovation to the Charleston Civic Center. The \$75M, 283,000 SF design-build project is being completed as a collaboration

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

- WV American Institute of Architects, President
- 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

with tvsdesign and BBL Carlton. Mr. Krason was responsible for the overall management of the design team, coordination with the client, and also has input critical project management decisions. The design commenced in the spring of 2015, and construction was complete in 2018.

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.

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 for managing the production effort for the billeting (hotel) expansion, which increased the total billeting capacity at the JITEC to 600 rooms. This project received LEED Gold 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.

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.

Edgewood Elementary School, Charleston, WV

Mr. Krason was the project manager 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. Mr. Krason worked with students from Watts and Robbins Elementary Schools in Kanawha County, assisting them in an effort to actively participate in the design process

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

2017 WV AIA Merit Award Logan-Mingo Readiness Center, Holden, WV

2016 WV AIA Merit Award Christ Church United Methodist, Charleston, WV

2015 WV AIA Merit Award Edgewood Elementary School, Charleston, WV

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 AlA Honor Award State Office Building #5, 10th Floor Renovation, Charleston, WV

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

David E. Ferguson, AIA, REFP





Role QA/QC

Professional Registrations Registered Architect (WW, OH) Recognized Educational Facility Planner (REFP)

Mr. Ferguson has served in the capacity of Architect, Project Manager, and Principal in Charge for a variety of projects at ZMM. This experience includes Educational (PK-12, Vocational and Higher Education), Retail, Corporate Office, Industrial, Military, Medical Office Facilities, General Healthcare Hospital and Psychiatric Hospital Projects. Mr. Ferguson's responsibilities include programming, design, documentation, architectural/engineering coordination and construction administration.

Mr. Ferguson began his career at ZMM in 1984 working on a variety of retail, educational and military projects throughout West Virginia, Pennsylvania, Ohio, Virginia, Maryland, New York, North Carolina, South Carolina, Florida, and Washington DC. In 1996 Mr. Ferguson expanded his expertise into the Healthcare and Industrial and Corporate Office facilities and since then has led the effort at ZMM in Educational Design. Mr. Ferguson is a Recognized Educational Facility Professional (REFP) and has been involved in planning, designing and the construction of over 200 educational facilities in West Virginia. As the architect for the first "green" school building in West Virginia Mr. Ferguson has been an advocate for sustainable design and was involved starting the first US Green Building Chapter in West Virginia.

Mr. Ferguson has also participated in developing West Virginia Department of Education's Policy 6200 Handbook on Planning School Facilities and the West Virginia School Building Authority's Handbook of Quality and Performance Standards. In addition to Mr. Ferguson's project management responsibilities, as a principal of the firm he has corporate administrative duties and serves on the Board of Directors.

Project Experience Highlights

Southside Elementary and Huntington Middle School, Huntington, WV Mr. Ferguson led the programming and design effort on this 156,000 SF facility. This project encompasses all phases of construction; demolition, major renovation and new construction. The original historic 26,000 SF three story school building was preserved and the

Education

Bachelor of Science; Industrial Technology/Architectural Design; West Virginia State University, 1979

Employment History

2007 - Present, Vice President, Secretary/Treasurer, ZMM 2002 - 2007, Vice President, ZMM 2001 - Present, Board of Directors, ZMM 1996 - Present, Architect, Project Manager, ZMM 1984 -1996, Designer, ZMM

Civic Affiliations

- A4LE Southeast Region Board of Directors – WV State Governor
- West Virginia Chapter, American Institute of Architects, Past President
- West Virginia Chapter, American Institute of Architects, Board Director
- American Institute of Architects, Member
- Member, Association for Learning Environments(A4LE)
- Recognized Educational Facility Planner (REFP) by the A4LE
- Professional Member, US Green Building Council
- High School Mentoring/Job Shadowing Program for 6 County School Systems
- WV AIA IDP Program Mentor/Advisor

remaining less than adequate facility was strategically removed to accommodate the new addition. The existing facility was completely renovated and brought up to new construction standards to blend with the new addition. The project consisted of two distinct school facilities existing on the same piece of property. The new construction blends seamlessly with the older historic structure.

Nicholas County Schools

Mr. Ferguson is currently leading the recovery effort for the of \$160 million dollar school system. On June 23, 2016 a flood destroyed three schools. These facilities were left unsafe and un-inhabitable. ZMM has worked with the County Board of education, FEMA, and the State of WV to design and program temporary schools and develop a long range plan to rebuild. ZMM is working on the programming and design for the two new facilities. A community school which will include spaces for the community to access, and a comprehensive High School/Middle School which will include a Career Technical Center. Mr. Ferguson has conducted community Meetings, established goals and priorities, created overall budgets and a project scope all stakeholders will support.

Explorer Academy, Huntington, WV Mr. Ferguson was the project manager/architect on the this new Expeditionary Learning Incubator School. The new Academy is the consolidation of Peyton Elementary and Geneva Kent Elementary in the east end of Huntington. The schools were combined and housed in the former Beverly Hills Middle School facility that will be remodeled to fit the mold of the Expeditionary Learning model. The curriculum for the program is very hands on, and is a real-world way of learning. Students will be working a lot with community partners, people who are experts in their fields. The students learn by conducting learning expeditions eather than sitting in a classom with one subject being taught as a time.

Huntington East Middle School, Huntington, WV Mr. Ferguson was responsible for the programming, design, and project management for the new 800 student, 94,000 SF facility. This is projected to be the first LEED Silver Middle School in West Virginia and encompasses the latest in technology and distance learning within the classroom. The building will be used as a teaching tool along with large interactive monitors throughout the building. Students will be able to learn how the building operates through hands on learning and monitoring the building systems.

Lincoln County High School, Hamlin, WV Mr. Ferguson was responsible for the programming and design effort for this one-of-a-kind facility. This 800 student, 217,000 SF school was a ground breaking facility for the county, West Virginia School Building Authority and the WV Department of Education. This facility was the first school in West Virginia to incorporate "green" design principals. The school was the first school east of the Mississippi River to encompass a fully comprehensive High School, Vocational School, Health Clinic (open 12 months a year), and Community College within one building. This facility is also the proud recipient of the 2007 WV AIA Honor Award.

Wood County Bond Program: Mr. Ferguson assisted Wood County in developing budgets, project scopes for a \$40 Million Dollar Bond Program. The bond created the New Williamstown Elementary School, Willamstown Middle School Addition and an addition to the Wood County Technical Center. The overall process involved community meetings, establishing goals and priorities, creating overall budgets and a project scope that the citizens would support. ZMM assisted Wood County Schools with distributing information, working with the bond committee and Bond Council to establish the actual Bond Call and assisting with public awareness throughout the county.

Cabell County Bond Program: Mr. Ferguson assisted Cabell County in developing budgets, project scopes and passing the largest bond program in West Virginia. This encompassed four projects and with additional funding from the West Virginia School Building Authority exceeded \$72 million dollars. As Principal, Mr. Ferguson led the programming and design effort on all four facilities.

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

2017 WV AIA Merit Award Explorer Academy, Huntington, WV

2016 WV AIA Merit Award Gauley River Elementary School, Craigsville, WV

2015 WV AIA Merit Award Kenna Elementary School, Kenna, WV

Rodney Pauley, AIA





Role Architect

Professional Registrations Registered Architect (WV)

Mr. Pauley is responsible for overseeing the daily design and production of the building, working in conjunction with in-house architectural, interiors and engineering staff to ensure the building not only meets the program requirements and budget, but meet the long-term needs of the owner. He also works directly with project principals to manage contracts, staffing and project deliverables. Mr. Pauley has a broad knowledge of building materials and services, building codes, and construction techniques, along with extensive experience in architectural detailing.

Mr. Pauley began his career in 1992 with an architectural firm in Atlanta, Georgia, and for the next 12 years rose to the Associate level by designing and managing a wide variety of project types including educational, retail, historic renovation, medical, and entertainment, specializing in office and speculative office design.

From 2005 through 2010, he worked at a number of Atlanta firms designing and managing office, high-rise condominium, and hotel projects. In 2010, Mr. Pauley moved back to Charleston, WV, to take a project management position with ZMM where he supervises the design and production of military, correctional and higher education projects.

Project Experience

Charleston Civic Center, Charleston, WV

Mr. Pauley served as project manager on the expansion and renovation to the Charleston Civic Center. The \$75M, 283,000 SF design-build project was completed as a collaboration with tvsdesign and BBL Carlton. The design commenced in the spring of 2015, and construction was completed in the fall 2018.

WV Lottery Headquarters, Charleston, WV

Mr. Pauley was the project manager and prepared construction documents for renovations to the existing WW Lottery Headquarters complex in Charleston, WV. Renovations to the existing 12-story office building include the demolition and reconstruction of three floors of tenant space and demolition and replacement of the existing roof along with various minor renovations throughout the office tower. The existing 5-story

Education

Bachelor of Architecture, University of Tennessee, 1992

Associate of Science, West Virginia Institute of Technology, 1986

Employment History

2010 - Present, Project Manager, ZMM 2008 - 2010, Project Manager, GA Firm 2006 - 2008, Project Manager, GA Firm 2005 - 2006, Sr. Project Architect, GA Firm

Jan. 2005 - Aug. 2005, Project Architect, VA Firm

Civic Affiliations

 American Institute of Architects, Member parking deck had extensive structural renovations. Renovations included: replacing bearing pads, patch & repair of concrete members and the addition of waterproofing protection. The existing warehouse under the parking deck was enlarged to provide additional storage space.

Valley Health Systems, Wayne, WV

Mr. Pauley was the project manager on the new health clinic in Wayne, WV. ZMM prepared construction documents for a new, one-story medical building operated by Valley Health Systems of Huntington, WV. The building is 15,580SF on a 2-acre site including approximately 100 parking spaces. Valley Health Systems provides primary and preventative care to the medically underserved population of southern West Virginia. The new building will replace an existing undersized facility.

Bridgemont Community and Technical College (Davis Hall, Building 704), Montgomery, WV Mr. Pauley is the project manager for a design team that is currently preparing construction documents for the renovation to an existing 7-story, 77,000 SF educational building. The project scope includes remedying several engineering and life safety deficiencies, as well as architectural improvements to the building envelope.

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

As part of an effort to provide 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.

WVU Institute of Technology, Montgomery, WV

Mr. Pauley was the project manager responsible for owner coordination and construction document production for renovations to the Engineering Classroom Building at the WVU Institute of Technology campus in Montgomery, WV. The main project scope included various minor interior renovations to the existing 44,000 SF building in support of the Owner's replacement of the building's two elevators. Coordination was critical between ZMM, WVU, the owner's elevator supplier & installer and the WV Division of Labor.

Sherman Junior High and High School, Seth, WV Mr. Pauley was the project manager responsible for owner coordination, design and construction document production for major renovations to the Sherman Junior High and High School in Seth, WV. The entire front of the building was renovated to improve both vehicular and pedestrian circulation while enhancing the entrances to both schools. Of the main road, a new, two lane bus loop was constructed along with a large parking area for 120 cars, separated from each other by a retaining wall with cable guardrail. Steps from the upper parking lot lead to two, new curved steel and brick canopies constructed to highlight the entrances to each school. On the interior of each school a new safe-school entrance was created along with renovations to each school's administrative area. At the rear of the building adjacent to the river, a new sanitary sewage treatment plant was installed replacing the larger existing unit.

Morgantown Readiness Center, Morgantown, WV Mr. Pauley was the project manager for the 58,000 square foot multi-use facility which includes assembly rooms, kitchen and dining facilities, military supply storage as well as locker rooms. The building is also designed to house the 249th Army Band and their associated practice and support spaces. This area is highlighted by a 150-seat auditorium and state-of-the-art main rehearsal stage. This project is aiming for LEED Silver Certification.

Edgewood Elementary School, Charleston, WV Mr. Pauley was the project manager for the design team that developed a new 60,000 SF elementary school on Charleston's West Side. The school was 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 was designed to function like a children's museum, providing a variety of learning opportunities, and flexible educational spaces.

Robert Doeffinger, PE





Role Engineering Principal

Professional Registrations

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

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 over 35 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

Charleston Civic Center, Charleston, WV

Mr. Doeffinger was the mechanical project engineer on the expansion and renovation to the Charleston Civic Center project. The \$75M, 283,000 SF design-build project was a collaboration with tvsdesign and BBL Carlton. The design commenced in the spring of 2015, and construction was completed in October 2018. The mechanical design is expected to reduce the energy requirements defined by ASHRAE 90.1-2013 by an estimated 25% and extensive water savings will be shown. The project includes a new chilled and hot water central plant with extensive replacement and upgrades to the facilities existing mechanical systems. Multiple phases of construction will allow the Civic Center to remain operational throughout the construction progress.

Education

Master of Science Architectural Engineering, Pennsylvania State University, 1976

Bachelor of Science Mechanical Engineering, West Virginia University, 1973

Employment History

2005 - Present, President, ZMM 1976 - 2005, 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

State Office Buildings #5, 10th Floor Charleston, WV Mr. Doeffinger was the Project Engineer for this renovation project 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. The renovations also include a low profile cable management system which maximizes the flexibility of the space. 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.

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.

West Virginia Regional Jails, Mr. Doeffinger was the Project Engineer on ten West Virginia Regional Jails. In 2009 he was responsible for the HVAC renovation on four regional jails, including the replacement of rooftop HVAC units and Building Automation Systems.

West Virginia Army National Guard, Joint Interagency Training & Education Center, Camp Dawson, 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 served by a 4 - pipe hot and chilled water system with an energy recovery ventilation system. This project received LEED Gold Certification.

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. Bridgemont began utilizing the facilities for instruction in the Spring of 2011.

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.

Bridgemont (BridgeValley) 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, 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.

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.

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.

Samuel Butzer, PE, LEED AP BD+C





Role Mechanical Project Engineer

Professional Registrations Professional Engineer (WV, WI, IL) LEED Accredited Professional

Mr. Butzer is a registered Professional Engineer with design experience in HVAC, Piping (Mechanical, Industrial, Laboratory, Medical Gas), Fire Protection and Plumbing systems. He has been responsible for an extensive range of projects that include Hospitals, Civic Complexes, Laboratories, Medical and Dental Office Buildings, Retail, Military Installations, Churches, Restaurants, K-12 Schools, Higher Education Facilities, Pharmaceutical Manufacturing, Natatoriums and Historical Renovations.

Mr. Butzer began his career in engineering with a mechanical contractor located in Wisconsin. His collective engineering experience includes projects that were design-build, design-assist and plan & spec. His background in engineering and 3D BIM design and coordination has provided him with extensive experience in the "real world" of HVAC and piping constructability. That experience has forged him into a leader at the integration of all construction disciplines into a multitude of building types and space constraints.

Mr. Butzer's dedication to the community and his civic affiliations demonstrates a strong connection to the engineering principles of energy efficiency, sustainability, occupant comfort and health.

Project Experience

Charleston Civic Center, Charleston, WV

Mr. Butzer was the Mechanical Project Engineer on the expansion and renovation to the Charleston Civic Center project. The \$75M, 283,000 SF design-build project was completed as a collaboration with tvsdesign and BBL Carlton. The design commenced in the spring of 2015, and construction is was complete in October 2018. The mechanical design is expected to reduce the energy requirements defined by ASHRAE 90.1-2013 by an estimated 25% and extensive water savings will be shown. The project included a new chilled and hot water central plant with extensive replacement and upgrades to the facilities existing mechanical systems. Multiple phases of construction allowed the Civic Center to remain operational throughout the construction progress.

Education

Bachelor of Science, Mechanical Engineering, University of Wisconsin at Madison, 2007

Associate of Science, Madison Area Technical College, Madison, WI, 2004

Employment History

2018 - Present, Board of Directors, ZMM 2013 - Present, Project Engineer, ZMM 2007 - 2013, Mechanical Engineer, WI 2005 - 2007, Mechanical Engineer Intern, UW-Madison FP&M

Civic Affiliations

- American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE), President of West Virginia State Chapter
- United States Green Building Council (USGBC), Board Member of West Virginia State Chapter
- Marshall University Engineering Advisory Board Member
- Kanawha City Community Association Board Member

Harrisville Elementary School, Harrisville, WV

Mr. Butzer was responsible for designing the HVAC systems for the renovation and additions to the elementary school. Initial design development consisted of variable refrigerant flow (VRF) systems coupled with dedicated outdoor air (DOAS) systems for the Classrooms and Administration areas. Roof mounted air conditioning and exhaust equipment were provided for the new Cafeteria, Kitchen and existing Gymnasium. Budget and space constraints forced the design to evolve into individual, self-contained, interior air handling units for each Classroom. The units were able to meet ASHRAE 62.1 requirements for ventilation, the Acoustical Society of America's (ASA) requirement for sound, and every other standard such as individual classroom temperature and dehumidification control as set forth by the School Building Authority (SBA).

Appalachian Regional Hospital, Beckley, WV

Mr. Butzer is the Mechanical Project Engineer currently working with the hospital on multiple renovations. The ICU and OR departments will undergo Mechanical and Architectural upgrades in a multiphase project while the hospital remains operational. The existing kitchen will receive a new make-up air unit, and fan coil units to improve pressure and air balance relationships within the hospital. A dedicated HVAC unit was provided for the endoscopy suite to improve thermal comfort and provide code-required ventilation, air-changes and humidity.

Glenwood Elementary School, Princeton, WV

Mr. Butzer was the Mechanical Project Engineer for this successful project that came in under budget, ontime and with zero change orders. The first phase was duct cleaning and sealing that improved indoor air quality and reduced system demand by 8 tons. The second phase was the HVAC improvements which replaced all existing constant volume, single compressor, multizone, air handling units (AHUs) with new variable speed, multi-compressor AHUs. VAV terminal units were installed to create separate zones for each classroom. A new building automation system was provided for system controls and to incorporate the facility into the existing county-wide controls network. All electric heating was abandoned to maximize use of the hot water heating system. Mechanical upgrades saved the school an estimated 18.5% in the electric usage and provided them with over \$13,000 in rebates from the electric utility.

Nicholas County Courthouse, Summersville, WV

The Nicholas County Courthouse is a Historic building constructed in 1898 with an addition executed by the Works Progress Administration in 1940. The courthouse was added to the U.S. National Register of Historic Places in 1991. Mr. Butzer led a project team responsible for upgrading an existing 2-pipe fan coil system into a 4-pipe system to provide simultaneous heating and cooling and meet the climate and comfort needs of specific occupants. A new 4-pipe system, variable speed pumps and 3-way valves were provided in the basement to achieve integration of the new system into the existing. Construction had to be phased to allow installation of the new heating loop while the existing system remained in cooling operation; the new cooling loop would be installed once the building switched over to the new heating loop. Welding and soldering were not allowed so materials such as PEX, pressure-seal copper and mechanical joint steel piping were specified. A new Building Automation System with most of the communication occurring wirelessly was chosen to minimize disturbances to the historical architecture of the building.

Gestamp West Virginia, South Charleston, WV

Mr. Butzer led a design team that was tasked to provide a mechanical system to separate out, or divert hydraulic fluid collected along with chilled water released from immense, automobile component stamping machines. The design included an aboveground oil-water separator, density meters, 3-way valves, storage tanks and a controls system to monitor fluid flow and guarantee separation or storage of non-compliant sanitary discharges.

John Pruett, PE, LEED AP





Role Mechanical Engineer

Professional Registrations Professional Engineer (WV, IN) LEED Accredited Professional

Mr. Pruett is responsible for overseeing the design of the HVAC systems, ensuring that the HVAC systems not only meet the program requirements, but meet the long-term needs of the owner. He performs heating and cooling load calculations and recommends the type of systems to be incorporated into the building. He coordinates with the other disciplines in order to integrate the HVAC systems into the building. Mr. Pruett has participated on several LEED registered projects; one of his key contributions to these projects is conducting energy analyses and recommending energy use reduction alternatives.

Mr. Pruett began his career in engineering with a manufacturing company in 1994. In 1998, he made a career change and joined an engineering consulting firm as an HVAC design engineer. He has a broad range of experience in HVAC systems design, including K-12 schools, higher education facilities, office buildings, libraries, hotels, restaurants, a convention center and several natatoriums. Having served in the Marines for 14 years, Mr. Pruett also led a design team for a "virtual memorial" for the birthplace of the U.S. Marine Corps.

Project Experience

Wood County Justice Center, Parkersburg, WV Mr. Pruett was responsible for the HVAC systems design for the LEED Silver project comprised of the judicial courts, Sheriff's department and holding cell area. The project utilizes highefficiency custom air handling units, including an energy recovery unit for the holding cell area, which has helped reduce energy consumption on the project by 18% compared to a baseline analysis.

Tucker County Courthouse Annex, Parsons, WV

Mr. Pruett was the Mechanical Engineer for the Courthouse Annex renovation project and responsible for the HVAC systems. 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.

Education

Bachelor of Science, Purdue University, West Lafayette, IN, 1993

Employment History

2010 - Present, Project Engineer, ZMM 2007 - 2009, Sr. Mechanical Engineer, IN 2003 - 2007, Mechanical Engineer, IN 1999-2003, Project Engineer, Fort

Civic Affiliations

Lauderdale, FL

- American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE), Member
- United States Marine Corps 14 Years

Huntington East Middle School, Huntington, WV Mr. Pruett was responsible for the HVAC systems design. This school features numerous sustainable features, including an air monitoring system for verifiable indoor air quality, variable refrigerant flow (VRF) systems for portions of the school that will operate year-round, preheating of the domestic hot water with the heating hot water return. Mr. Pruett also conducted an extensive energy analysis of the building and all of its systems to maximize the effect of each component, resulting in a projected reduction in energy consumption of 32% compared to a baseline analysis.

Edgewood Elementary School, Charleston, WV Mr. Pruett was the mechanical engineer on the new Kanawha County Elementary School on Charleston's West Side and responsible for the HVAC systems design. 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.

Additional Education Experience

Explorer Academy John Adam Middle School Salt Rock Elementary School

Project Experience with other firms

Southern Indiana Career and Technical Center (SICTC), Evansville, IN Mr. Pruett was responsible for the HVAC systems design for the 262,000 square foot facility. The project features a complex air system necessitated by the diversity of the educational programs featured in the facility: welding, auto shop, building trades, electronics, radio/TV communications, culinary arts, etc. The main mechanical room was also designed to be an educational space, utilizing color-coded piping, a corresponding color-coded equipment schematic and an accessible controls workstation to aid the students in learning about building systems.





Role Mechanical Engineer

Professional Registrations

Professional Engineer (WV, PA, OH, MD)

Mr. Lowry is a registered Professional Engineer with design experience in:

Industrial

Bayer Material Science, West Virginia Higher Education Policy Commission, Kuraray America, Armstrong Flooring, Covestro Laboratories.

Educational

Renovations, evaluations and additions at Marshall University, West Virginia University Institute of Technology, Mercer County Schools and various other Schools and Universities statewide.

Commercial

West Virginia Capitol Complex, West Virginia Parkways Authority

Heath Care

Renovations, evaluations and additions at Cabell Huntington Hospital, Charleston Area Medical Center, Charleston Surgical Center, West Virginia Department of Health & Human Resources, Huntington VA Hospital and other various healthcare facilities statewide.

Project Experience

WV Army National Guard, Kenova Secured Area

Mr. Lowry is the Mechanical Project Engineer on the renovations of existing facility for the inclusion of a new sand alone secured area with the existing facility. Project conformed to all additional federal/military requirements for secured areas.

WV Army National Guard, Camp Dawson Secured Area

Mr. Lowry is the Mechanical Project Engineer on the renovations of existing facility for the inclusion of a new sand alone secured area with the existing facility. Project conformed to all secured area with the existing facility.

Mountain State Oral Sugary, Charleston, WV

Mr. Lowry was the Mechanical Project Engineer currently working with the developing contractor BBL Carlton renovations to the existing facility. The existing Office space will be

Education

BS, Mechanical Engineering, West Virginia University Institute of Technology, Montgomery, WV, 2004

Employment History

April 2018 - Present, Mechanical Engineer, ZMM 2015 - 2018, Mechanical Engineer, Pickering Associates

Civic Affiliations

 American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE), President of West Virginia State Chapter converted to new patent care areas. We evaluated the applicable mechanical and plumbing codes and developed the plumbing construction drawings in conjunction with the Owner and BBL.

Wood County Technical and Career Center, Parkersburg, WV

Mr. Lowry is the Mechanical Project Engineer for this project. This project consists of renovations to 80% of the existing facility and an addition of 8 classrooms, one welding shop, multipurpose room and administration areas. The renovations include conversation of admin space to. classroom space, conversion of classroom space to pro-start kitchen space, conversations of existing welding shop to new broadcasting shop. Renovations to collision repair, auto mechanics and construction shops to bring them up to current codes and standards. Design of new HVAC system for all renovated areas, including specialized exhaust for the welding, painting, construction and pro-start kitchen areas. Design of new HVAC systems for the addition classrooms, multipurpose area and admin areas.

Project Experience with other firms

Cabell-Huntington Hospital, Huntington, WV

Mr. Lowry was responsible for the evaluation and design of the existing facility chilled water distributions systems, design of a new 4600 ton chilled water plant, Development of phased construction plan to construct the new plant and distributions piping for tie-into the existing systems to minimize down time on the existing chilled water systems.

Armstrong Flooring, Beverly, WV

Mr. Lowry was responsible for the evaluation and design of the existing and the connection to existing mechanical systems to serve a new addition to the manufacturing facility. The new addition will consist of storing flooring product, loading docks, and admin area. The new area was designed to be heated via the existing steam systems and provided with humidification to protect the product. The work was designed in a manor to allow for phase of the construction without interruption to the facilities operations.

Scot Casdorph, PE





Role Electrical Engineer

Professional Registrations Professional Engineer (WV)

Mr. Casdorph 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. Casdorph 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. Casdorph 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

Charleston Civic Center, Charleston, WV

Mr. Casdorph was the electrical engineer on the expansion and renovation to the Charleston Civic Center project. The \$75M, 283,000 SF design-build project is being completed as a collaboration with tvsdesign and BBL Carlton. The design commenced in the spring of 2015, and construction was complete in October 2018.

Joint Interagency Education and Training Center (WVARNG), Kingwood, WV Mr. Casdorph 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. This project reached LEED Gold Certification.

Jackson County Armed Forces Reserve Center, (WVARNG), Millwood, WV Mr. Casdorph 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

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 simulation center. The project is targeted for LEED Silver Certification.

Glen Jean Armed Forces Reserve Center, (WVARNG), Glen Jean, WV Mr. Casdorph 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 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.

Southside Elementary and Huntington Middle School, Huntington, WV Mr. Casdorph was the electrical engineer on this 156,000 SF facility. This project encompasses all phases of construction; demolition, major renovation and new construction. The original historic 26,000 SF three story school building was preserved and the remaining less than adequate facility was strategically removed to accommodate the new addition. The existing facility was completely renovated and brought up to new construction standards to blend with the new addition. The project consisted of two distinct school facilities existing on the same piece of property. The new construction blends seamlessly with the older historic structure.

Gauley River Elementary School, Craigsville, WV

Mr. Casdorph was responsible for the electrical design of the new elementary school. The project is consolidating Beaver Elementary School and Craigsville Elementary School into a new 375-student school. The school houses 3 Pre-Kindergartens, 3 Kindergartens, 2 first grade, 12 1st-5th grade classrooms, activity room, cafeteria, kitchen, media center, and administration spaces.

Lincoln County High School, Hamlin, WV Mr. Casdorph 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. Casdorph was responsible for the electrical design of the new 96,000 SF facility housing 700 middle school students grades 6 through 8.

Fort Gay PK-8 School, Fort Gay, WV

Mr. Casdorph was the electrical engineer and was responsible for the electrical power distribution and design. The New Fort Gay PK-8 School replaces the existing facility that has been in disrepair and lacking the spaces and technology delivery system required for 21st century learning skills. The total enrollment for the school is 603 Students. The new grade configuration separates the Elementary students from the Middle School students, but still allows use of the common spaces within the building. They share the Dining Room, Gymnasium, Media Center and a Stage.

Southern WV Community & Technical College, Williamson WV Mr. Casdorph 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, South Charleston, WV Mr. Casdorph 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. Casdorph 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.

Michael J. White, PE





Role Structural Engineer

Professional Registrations

Professional Engineer (WV, KY, IN, TN, OH, SC)

Mr. White has more than 10 years of Civil/Structural design and engineering experience. Project experience includes new construction and renovation work involving the design and analysis of reinforced concrete, wood, structural steel, masonry and cold formed steel.

Project Experience

WVDNR Forks of Coal Milton PK School Midland Trail High School Valley Park Community Center Marshall County Readiness Center

Other Jobs from Past Employers: Monongalia County Justice Center - Morgantown, WV Lewis Co. Judicial Annex - Weston, WV Charleston Correctional Work Release Center - Charleston, WV Stevens Correctional Facility - Welch, WV Marsh Fork Elementary School - Naoma, WV WVANG Camp Dawson, Multi-Purpose Building - Kingwood, BridgeValley Advanced Technology Center - South Charleston, New River Community and Technical College Headquarters Building - Beaver, WV Lewisburg Elementary School - Lewisburg, WV Rainelle Elementary School - Rainelle, WV Boone County Honors Academy Addition - Madison, WV WVU Parkersburg Center for Early Learning - Parkersburg, WV WVU Parkersburg Applied Technologies Center - Parkersburg, WV

Education

B.S., Civil Engineering, West Virginia University Institute of Technology, Montgomery, WV, 2006

Employment History

2016 - Present, Structural Engineer, **ZMM** 2016, Civil/Structural Lead, Jacobs **Engineering Group** 2013 - 2016, Structural Engineer, Chapman Technical Group 2010 - 2013, Structural Engineer/Project Manager, Moment Engineers 2007 - 2010, Structural Engineer/Project Manager, Advantage Group Engineers, Inc. (Cincinnati, OH)

FaLena Perry, CDT





Role Construction Administrator

Professional Registrations EIT

Mrs. Perry describes her role with ZMM as Construction Administrator as an exciting and invigorating opportunity with new experiences every day. From varying jobsite conditions to the differing professionals she encounters on a daily basis, Mrs. Perry approaches construction administration with a fresh set of eyes and desire to help provide the best outcomes possible for each project.

Mrs. Perry has nearly six years experience working as a Structural Engineer with two of those being a Project Manager. Structural engineering experience includes projects ranging from everything including \$135M university buildings down to residential homes and even historic restoration projects. Project variety includes Educational (K-12 and university), Commercial, Military, Office, Justice (Courthouses, Justice Centers, Police Department and Correctional), Multi-Use Residential, Civic (WWTP), Healthcare (Health Departments), Fitness (Gyms), Religious, Historic Restoration and an Arena. These projects are spread over Kentucky, West Virginia and Ohio.

Project Experience

Valley Park Community Center, Hurricane, WV

Mrs. Perry served as Construction Administrator on the new Community Center building and renovation at Valley Park. The \$15M construction project included a new community building, ball fields and a playground. Mrs. Perry was responsible for the administrative duties, performing on-site observations and tracking construction progress. Mrs. Perry collaborated with the client, design team and contractors to confirm that project guidelines are satisfactorily met. The facility reached completion in May 2018.

Ravenswood Middle School, Ravenswood, WV

Mrs. Perry is serving as Construction Administrator of the high school addition that will house the two-story Ravenswood Middle School making this the 20th facility in WV that will combine both high school and middle school students. This project is limited with available space as it is to fit into the existing high school footprint.

Midland Trail High School, Fayetteville, WV Mrs. Perry is serving as Construction Administrator of the six room high school addition that will include a STEM lab as well as other

Education

Bachelor of Science, Civil Engineering, University of Kentucky, 2003

Masters of Science, Civil Engineering, University of Kentucky, 2005

Employment History

2017 - Present, Construction
Administrator, ZMM
2009 - 2010, Design Engineer, Moment
Engineers, Charleston, WV
2004 - 2008, Engineer, Project Manager,
BFMJ Inc., Lexington, KY
2003 - 2004, Graduate Assistant,
University of Kentucky College of
Engineering

Civic Affiliations

- Project Coordinator, Forrest Burdette UMC, Family Life Center
- Sunday School Teacher for Young Professionals
- Cub Scout Den Leader Pack 236

classrooms. The large space planned for the STEM lab will encourage hands-on exploration, learning, and technology integration. This addition will address the under utilization of Midland Trail as well as Anstead Middle.

Project Experience Other Firms

University of Kentucky Biopharmacy Building, Lexington, KY

Mrs. Perry worked as team member in the design the new \$134M College of Pharmacy Biopharmacy research building. The research facility builds on the state's initiative to address health challenges and disparities in KY. The building featured expansive auditorium style classrooms and a self-supporting stair, of which Mrs. Perry modeled and designed.

Kentucky Transportation Cabinet, DOH, District Five Office Building, Louisville, KY

Mrs. Perry acted as the Project Manager for this new office space for the Department of Highways. This project consisted of concrete and steel structural members. Mrs. Perry coordinated design efforts with a team of engineers, architects and the owner.

Moses Residence, Huntington, WV

Mrs. Perry was responsible for the structural design of the Moses Residence which includes ICF walls, timber, steel and concrete. This home is a zero net energy home and has platinum LEED certification.

Mark T. Epling, AIA, LEED AP, NCARB





Role Specifications Writer

Professional Registrations
Registered Architect (WV, OH,)
LEED Accredited Professional
NCARB Certification
Construction Documents Technologist (CDT)

Mr. Epling is responsible for the creation and coordination of Project Manuals including specifications for all ZMM projects. The coordination duties include the incorporation of specifications from several design disciplines including structural, plumbing, HVAC, and electrical specifications.

Mr. Epling's duties also include determining the type and number of bid packages and resulting construction contracts for a particular project, and following through with the incorporation of the appropriate contract forms and contract conditions into the Project Manuals.

Mr. Epling began his career as a licensed Architect in October 1982 and has acquired experience in all aspects of the architectural practice working on a variety of building types including single-family homes, medical clinics, industrial facilities, theatre restoration, commercial-retail buildings, and college dormitory and elementary school remodeling.

Mr. Epling began working at ZMM in February 1998 and has worked in preparation and coordination of working drawings, construction contract administration, and beginning in June of 2006, took on the role of specifications writer and has remained in that capacity.

Project Experience

Mr. Epling's recent project experience includes the preparation of Project Manuals for the following ZMM projects:

Charleston Civic Center - Expansion and Renovation WV State Capitol Roof Replacement WV State Office Building #5, 6, & 7 WV Housing Development Fund CFMO Expansion Houston Company Store Erma Byrd Center Joint Interagency Training & Educational Center (JITEC) Huntington East Middle School WV Army National Guard - Glen Jean AFRC

Education

Bachelor of Architecture; Virginia Polytechnic Institute and State University; 1977

Employment History

1998 - Present, Project Architect & Specifications Writer, ZMM 1997 - 1998, Project Architect, OH Firm 1982 - 1997, Architect, Self Employed, Located in OH 1978 -1982, Intern Architect, OH Firm

Civic Affiliations

- American Institute of Architects, Member
- West Virginia Symphony Chorus, Member

WV Army National Guard - Jackson County AFRC

WV Army National Guard - Morgantown Readiness Center

WV Army National Guard - Logan-Mingo Readiness Center

WV Army National Guard - Marshall Readiness Center

Wood County Justice Center

Tucker County Courthouse Annex

Southern WV Community & Technical College

Bridgemont Community & Technical College

Milton Middle School

Barboursville Middle School

Kenna Elementary School

Craigsville Elementary School

Southside Elementary/Huntington Middle School

laeger - Big Creek High School

Lincoln County High School

St. Albans High School

Bradshaw Elementary School

Edgewood Elementary School

Hacker Valley Pre K-8 School

Beech Fork State Park Lodge

CAMC Teays Valley

Highland Hospital

State Office Buildings 5,6, & 7



LOCATION: Charleston, WV

COMPLETION: On-Going

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







More than forty (40) years ago, ZMM (as Zando, Martin, and Milstead) designed the original State Office Buildings 5, 6, & 7. Over the last several years, ZMM has been assisting the State of West Virginia General Services with various improvements to the buildings. These improvements have ranged from substantial renovations to maintenance and repair type projects, and include:

Roof Replacement

ZMM assisted the General Services Division with a roof replacement for all three buildings. The roof replacement utilized a white EPDM roofing material, with consideration being given to sustainability. The existing ballast, roof membrane, and rigid insulation were also salvaged as part of the roof replacement project. Several unused mechanical penthouses, antenas, and other abandoned equipment was also removed.

Electrical Courtyard Improvements

ZMM assisted the General Services Division with a project to expand the electrical courtyard adjacent to Building 7, and simultaneously improve the electrical service entry to buildings 5, 6, & 7. This project required both historical (matching the existing granite panels), as well as very technical electrical engineering design considerations.

Door and Window Replacement

ZMM has assisted with two separate projects, one to replace the windows in Buildings 5 & 6, and the second the replace the doors at the entries to Buildings 5, 6, & 7. These projects included building envelope and security considerations. The projects were designed and staged to minimize disturbance to the buildings occupants.

State Office Buildings 5,6, & 7

Major Renovations

ZMM provided design services for the renovation of the 10th Floor of Building 5 for the Office of Technology - a project that was recognized with a design award from the West Virginia Chapter of the American Institute of Architects. The project focused on demonstrating the potential that exists in State Office Buildings 5 & 6 if the floors are renovated in a more contemporary manner that moves the open office spaces to the perimeter, and pulls the offices adjacent to the building core. The project also involved close coordination with the State Fire Marshal, the introduction of a new sprinkler service and fire pump into the building, demolition, construction management, and hazardous material abatement. The project was delivered considerably under the anticipated project budget. ZMM has also assisted on renovations to the 8th Floor of Building 6 for the Department of Education and the 2nd, 3rd & 4th Floors of Building 6 for the Department of Education and Division of Personnel. Work on the 8th Floor of Building 6 is the only additional renovation constructed to date. ZMM has recently been released to provide design services for Floor 7, 8 & 9 of Building 5 and the 7th Floor of Building 6.





Caulk Replacement

ZMM provided design services to remove and replace all of the caulk located between the limestone and precast panels on the exterior of Buildings 5, 6, & 7. The project also included cleaning of the building's exterior along with some repair work. The project was coordinated with the Capitol Building Commission, although to date, the construction for this improvement has not commenced.

Valve Replacement

ZMM assisted with a valve replacement project to isolate mechanical risers in Building 5 & 6. This technically intensive mechanical project will give the General Services Division greater control over the system, and will help isolate various risers in the event of significant system failures in the future.

State Office Building #5, 10th Floor

Office of Technology



LOCATION: Charleston, WV

SIZE: 22.000SF

COST: \$3.7M

COMPLETION: 2010

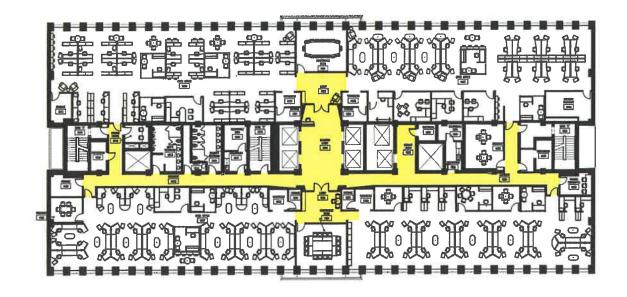
CONTACT: Greg Melton, Director of General Services Capitol Complex Building Building 1, Room MB-60 1900 Kanawha Blvd., E. Charleston, WV 25305 304.558.2317

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.





Additional State Office Building Experience



State Office Building No. 6: 8th Floor (Department of Education) 11.800SF



The partial renovation of the 8th Floor in State Office Building No. 6 on the State of West Virginia Capitol Campus was recently completed for the Department of Education. The renovation included the east half of the floor, the building core, the demolition of the existing construction, as well as significant hazardous material abatement.

ZMM, working with the State of West Virginia General Services Division, developed a strategy to renovate approximately 11,800 Sf of space for 55 employees. The design included a mix of private and open office space which responded to current workplace trends. ZMM also developed the interior furniture and equipment design with significant coordination with the Department of Education.

To improve the opportunity for daylighting, the enclosed office spaces line the building core while the systems furniture workstations inhabit the large room adjacent to the perimeter windows. 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 agency suite has a separate reception area off the elevator lobby with a large conference room which helps divide each open office area. In addition, renovations to the building core consisted of elevator lobby upgrades, a large breakroom, restroom ceilings & lighting and significant upgrades to the mechanical and electrical systems. Of those, the elevator lobby renovations would have been the most significant, creating a consistent look and level of finish at each entry point.

State Office Building No. 6: 5th Floor (Department of Commerce) 4,000SF

The partial renovation of the 5th Floor in State Office Building No. 6 on the State of West Virginia Capitol Campus was recently completed for the Department of Commerce. The renovation included a partial renovation of west half of the floor and the demolition of the existing construction. ZMM, working with the State of West Virginia General Services Division, developed a strategy to renovate approximately 4,000 Sf of space for 12 employees which included a large office for the Cabinet Secretary. ZMM also developed the interior furniture and equipment design.

Additional State Office Building Experience



State Office Building No. 6: Floors 2-3 (Department of Education) State Office Building No. 6: 4th Floor (Division of Personnel)

66,000SF

The renovation of the floors 2-4 in State Office Building No. 6 on the State of West Virginia Capitol Campus were originally designed for the Department of Education and the Division of Personnel. Education would occupy floors 2 & 3 while Personnel would reside on the 4th floor. The renovation was to include demolition of the existing construction, as well as significant hazardous material abatement.



ZMM, working with the State of West Virginia General Services Division, developed plans to renovate approximately 44,000 Sf of space for 187 employees for the Department of Education which included a large executive suite for the State Superintendent's staff on the 3rd floor. The renovation also included approximately 20,000 Sf of space for 78 employees for the Division of Personnel along with a 2,000 SF separate tenant space. Each plan included a mix of private and open office space which responded to current workplace trends. ZMM also developed the preliminary interior furniture and equipment design with significant coordination with both state agencies.

To improve the opportunity for daylighting, the enclosed office spaces line the building core while the systems furniture workstations inhabit the large room adjacent to the perimeter windows. 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. Each side of the building has a separate reception area off the elevator lobby with a large conference room which helps divide each open office area. In addition, renovations to the building core would have consisted of elevator lobby upgrades, a large breakroom, restroom ceilings & lighting and significant upgrades to the mechanical and electrical systems. Of those, the elevator lobby renovations would have been the most significant, creating a consistent look and level of finish at each entry point.

Additional State Office Building Experience



State Office Building No. 5: Floors 7-9 (Division of Highways) State Office Building No. 6: 7th Floor (Department of Education) 88,000SF

The renovations in State Office Building No. 5 & No. 6 on the State of West Virginia Capitol Campus were recently completed for the Division of Highways and the Department of Education. Highways would occupy floors 7-9 in Building No. 5 while Education would reside on the 7th Floor of Building No. 6. The renovation was conducted in two phases and included the demolition of the existing construction, as well as significant hazardous material abatement.

ZMM, working with the State of West Virginia General Services Division, developed a strategy to renovate approximately 66,000 Sf of space for 271 employees for the Division of Highways which included two large training areas on separate floors and the relocation of their main data hub room. The renovation also included approximately 22,000 Sf of space for 87 employees for the Department of Education which included a large executive suite for the State Superintendent's staff. The design included a mix of private and open office space which responded to current workplace trends. ZMM also developed the interior furniture and equipment design with significant coordination with both state agencies.

To improve the opportunity for daylighting, the enclosed office spaces line the building core while the systems furniture workstations inhabit the large room adjacent to the perimeter windows. 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. Each side of the building has a separate reception area off the elevator lobby with a large conference room which helps divide each open office area. In addition, renovations to the building core would have consisted of elevator lobby upgrades, a large breakroom, restroom ceilings & lighting and significant upgrades to the mechanical and electrical systems. Of those, the elevator lobby renovations would have been the most significant, creating a consistent look and level of finish at each entry point.



WV State Capitol Roof Replacement



LOCATION: Charleston, WV

COMPLETION: TBA











The West Virginia State Capitol Building was constructed in 1924-1932 and is listed on the National Register. The scope of work includes replacement of the roof on connectors and roofs above as well as the base of the dome. This project started with an in-depth study of existing drawings and site conditions and a site visit to the Capitol to ascertain the actions necessary to provide the new roof system.

The investigation included:

- Review all Roofing Components for Integrity/Ability to Control Moisture Collection/Removal
- Conduct Destructive Testing (Multiple Roofing/Flashing Systems?)
- Hazardous Material Testing of Components (Paint, Mastic, Insulation, Caulking)
- Review all Points of Roof Access: Walkways, Walkway Pads, Stairs
- Work with GSD to Develop Recommendations for the Roofing System
- Consider Building Envelope Performance/Insulation Requirements

All the roof system components will need to be reviewed for their integrity and ability to control moisture collection and removal from the building's roof. The components that are to be reviewed will include parapet walls, railings, wall conditions, colonnades, roof penetrations, roof drains, roof equipment, and walking surfaces. Investigative holes will need to be cut into the existing membrane to identify conditions of insulation, roof deck and any remains of former roofing materials and flashing systems. Test of roofing materials will need to be made for any possible hazardous materials. Our ability to provide comprehensive design solutions will be advantageous as it relates to mechanical equipment curbs and structural supports.

A report will be prepared and presented showing findings and recommendations from the investigation of all the roof conditions. The report will include recommended option for the roof membrane material, discussion of repairs to roof components, as well as any required repairs to the roof deck. Also included in the report will be a preliminary cost estimate including cost differences for each proposed option. ZMM will provide construction observation services and will work with the owner's representative during the construction process. We will be responsible for reviewing all shop drawings and questions that occur during the project. ZMM will also participate in all progress meetings and make site visits on a regular basis. ZMM will remain available to assist the state throughout the warranty phase of the project.

ZMM ARCHITECTS ENGINEERS

HVAC Renovation Experience



Charleston Coliseum & Convention Center (2015) – Replace entire MEP infrastructure three 1,000 ton chillers and cooling towers, three 8,000 mbh gas condensing boilers, approximately ten VAV AHU's, approximately 10 large single zone VAV AHU's.

Charleston Kanawha Health Department (2015) – Replace entire mechanical system to include air cooled chiller, gas fired make-up unit and zone fan coils with electric reheat, approximately 45,000 SF new DDC controls.

United Bank Building – Cooling Tower Replacement (2010) – Two 400 ton centrifugal chillers, rebuild two large VAV AHU's, installed free cooling plate frame heat exchangers (2015).

Kanawha County Public Library (2015) – Replaced two gas-fired boilers with new gas condensing boilers.

Building 5 Capital Complex (2008) – Replaced 10th floor office space air condition, replaced perimeter induction units with new steam chilled water air handling units, distributed VAV terminal units with modification to architectural fit out approximately 22,000 Sf. Installed new sprinkler service entrance for Buildings 5, 6, and 7.

Capitol Complex Building 5, 7th, 8th, & 9th Floors – Rebuild perimeter induction system and interior multizone distribution in addition to total architectural fit up, approximately 70,000 SF.

Capitol Complex Building 6, 3rd, 4th, & 5th Floors - Rebuild perimeter induction system and interior multizone distribution in addition to total architectural fit up, approximately 70,000 SF.

WV Lottery Headquarters Building (2014 - 2015) – Installed 40,000 SF of new variable refrigerant system, new make-up air system, comprehensive architectural services.

WV State Capitol Cafeteria – Installation of large catering and service kitchen, included steam make-up air system, 3 Class 1 kitchen hoods, Class 2 kitchen hoods, all plumbing system, sprinkler system including sprinkler service entrance for entire Capitol Buildings, comprehensive architectural services.

HVAC Renovation Experience







Old Kanawha Valley Bank Building (2003) - New cooling chiller. (2015) - New cooling tower.

City Center East (2008) Chiller Replacement.

Tenant Fit-Up Numerous Office Buildings Charleston – BB&T Building, City Center East, United National Bank Building, Hunting National Bank Building to include VAV distribution, electrical and architectural services.

Additional HVAC Projects:

Huntington Herald Dispatch - HVAC Study Walker Machinery Main Office Renovation - HVAC Walker Diamond Office - HVAC Walker Machinery - HVAC Renovations State of WV - Governor's Mansion Corrective HVAC Study Camp Dawson Regional Training Institute - HVAC Central Regional Jail - HVAC and Roof Replacement King of Prussia, PA – HVAC Design (Multiple Projects) Kanawha Valley Senior Services - HVAC Tolsia High School - HVAC Renovations Cabell County Schools - (Multiple HVAC Projects) Cabell County Career & Technical Center - HVAC Replacement Cabell County Incubator School - HVAC Harrisville Elementary School - HVAC Ritchie County HS/MS - Cooling Tower Replacement Spring Hill Elementary School - HVAC Roane-Jackson Career & Technical Center Salt Rock Elementary School - HVAC Renovation Wayne County Schools - New HVAC System Projects Greenbrier County Schools - New HVAC System Projects Huntington High School Cabell-Midland High School







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

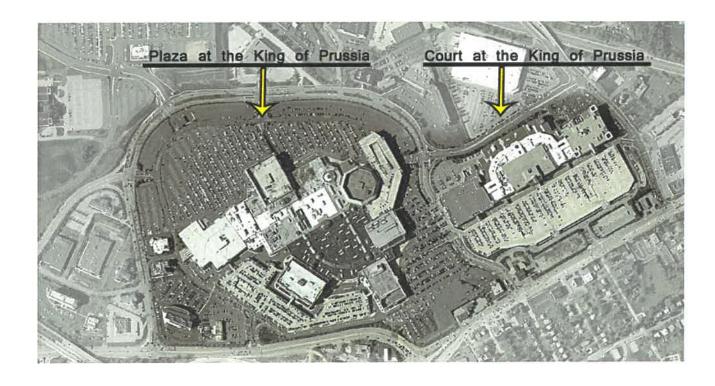
- 2,500,000 SF, 4,000-Ton Chilled Water Plant, VAV and CV
- · Air Handling System
- Existing and New Spaces

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
- Addition 150,000 SF and New VS 1,250 Ton Chiller
- 5,000 Ton CHW Plant Primary Secondary Pumping



Charleston Coliseum & Convention Center



LOCATION: Charleston, WV

SIZE: 283,000 SF

COMPLETION: 2018

COST: \$75M

CONTACT: John Robertson, Director 200 Civic Center Drive Charleston, WV 25301 304.345.1500



The Charleston Coliseum and Convention Center (formerly named Charleston Civic Center) Expansion and Renovation is a transformational project for both the city of Charleston and West Virginia. Our team was influenced by the strong authentic character of Charleston to remake the Charleston Civic Center into a more efficient, more sustainable, more dynamic and a more iconic best-in-class destination.

The design of the expansion and renovation of the Charleston Coliseum & Convention Center is inspired by the story of West Virginia. Defined by a rugged landscape, the early history of the state was dominated by extractive industries — salt, coal, timber, trapping. This set the local character. With a foundation rich in resources, manufacturing added value to the raw materials with crafts like glass making and industries like chemicals and energy. This attracted a rich diversity of immigrants and a culture of craftsmanship that set the urban character. The economy is shifting from industry and service to information and technology. Again, the landscape and industry that shaped the region gives Charleston real advantages to exploit. The Creative Class, critical for the information and technology age, can live and work anywhere - what they want is access to the outdoors; real places with real character; and continuous education and entertainment.

Our design starts with an organizational concept inspired by this history. The Kanawha River is the social organizing link throughout the region, with settlement zones developing on whatever flatland the river provided --creating nodes of activities among the hills and valleys.





Charleston Coliseum & Convention Center



The renovated facility is a building that emerges from this iconic landscape, with the architecture and topography working together. The Coliseum & Convention Center also has distinct active nodes to celebrate each activity; arena, convention, and banquet, and these nodes are connected like the hills and cut rock faces that are seen throughout the state as people work to connect to each other through the landscape.

The first critical design objective was to create separate entries and identities for the arena and convention center. This allows for simultaneous events and clarity of use. For the convention center to thrive, it needs a real ballroom assembly space. Located overlooking the Elk River, the new ballroom pre-function space is the most dramatic feature of the center. Together, the three glass enclosed nodes --arena lobby, convention lobby, ballroom --define a unique Charleston event campus. As described above, the spaces that connect these nodes are inspired by the hills and cut rock faces that connect the towns along the Kanawha River. With the building emerging from the landscape and expressed as cut rock walls, the connecting areas are designed to be expressive and economical backdrops to the glass boxed nodes.

While the expansion transforms the southeast to the middle of the northern zone of the site, the existing building mass still dominates a portion of the northern and eastern campus. The dominant expression along these existing facades is the landscaped berms. As we imagined the new building expression emerging from the landscape, a strategy developed to transform these berms to reflect, at the pedestrian level, the overall design theme. Above the level of the berms, the new concourse level windows will open up the facade and provide a much needed break in the massing. The upper part of the arena was painted in two tones to match the new building, playing off the different faces. The north, south, east and west faces painted a lighter shade; and the northeast, southeast, southwest and northwest faces a darker shade. Dramatic exterior color-changing lighting on the northeast, southeast, southwest and northwest faces transform the look and feel of the center into a fun and festive landmark.

Cultural Center - Great Hall Lighting Wiring System



LOCATION: Charleston, WV

COMPLETION: 2011

CONTACT: Randal Reid Smith Cultural Center Director 1900 Kanawha Blvd., E. Capitol Complex, Building 9 Charleston, WV 25305 304.558.0220







ZMM completed the Great Hall Wiring System located at the Cultural Center on WV State Capitol Complex. The existing wiring and conduit system was approximately thirty-five years old and in need of drastic improvements. The existing conditions that were observed included the conduit and outlet boxes were mounted on the underside of the existing grating above the ceiling, the dimming circuits shared a common neutral, bad fixture connections and cables.

ZMM performed a complete survey and drawings of the existing conduit, wiring, and dimming systems. The circuiting requirements were confirmed and ZMM proposed new correction methods with a dimming equipment manufacturer.

The bidding documentation included the following:

- Drawings to indicate 141 dimmer circuits, conduit, and wiring to be removed back to the existing dimmer cabinet.
- Drawings to indicate new conduit and wiring requirements run above the existing grating with new twist-lock recap tacles for the lighting conditions.
- Drawings and details to indicate rewiring and cleaning methods to be used for 192 light fixtures.
- Specifications for all electrical work to be performed in accordance with National Electrical Code and all applicable codes.

West Virginia Lottery Headquarters

Office Building and Parking Garage



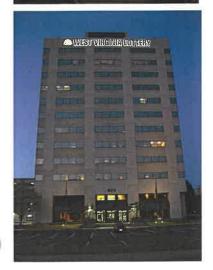
LOCATION: Charleston, WV

CONTACT: John Myers Cabinet Secretary for Administration 900 Pennsylvania Ave Charleston, WV 25302 304.558.0500









The project is an extensive renovation of an existing 13-story office building and 7-story parking garage in downtown Charleston, WV. The building is currently owned and operated by the WV Lottery but also houses many other state government agencies.

Major renovations within the office building consist of the demolition and renovation of three existing tenant floors, the relocation of the existing fitness center and replacement of the existing roof. The West Virginia Division of Insurance is being relocated from their existing, outdated office space to floors 7, 8 & 9. Off the newly renovated elevator lobbies on each floor is a reception area which leads to an interior space primarily constructed of enclosed offices to better suit current department requirements. To provide contiguous floor space for the Division of Insurance an existing tenant space on the 6th floor is being demolished and renovated into the new fitness center located across from the existing Café. Construction on the roof includes the removal and replacement of the existing roof insulation and membrane and the installation of new roof davits and stainless steel guardrail meeting current OSHA requirements.

The existing precast concrete parking deck will be undergoing a widespread renovation including structural repairs and restoration, major electrical upgrades and an addition to the existing storage warehouse. After vast investigative work it was determined that bearing pads need to be replaced under the existing concrete double-tee framing members, concrete structure and topping slabs needed repair and concrete spandrel panels required epoxy injection to repair extensive cracking. Horizontal driving surfaces are receiving new waterproofing, sealant joint replacement and restriping. The circulation connector between the office building and the parking deck is in structural repair also, requiring partial demolition and reconstruction of the existing steel deck and concrete floor slabs. Electrical improvements will consist of new LED lighting throughout and additional pole fixtures on the top level along with power and life-safety upgrades. The one-story storage warehouse located underneath the existing parking deck is being increased by approximately 1.800 sf. The addition will consist of masonry exterior walls clad in EIFS with a sloped steel-framed roof and single-ply membrane system.

Wood County Justice Center Renovation



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
304.424.1984
dbc@woodcountywv.com

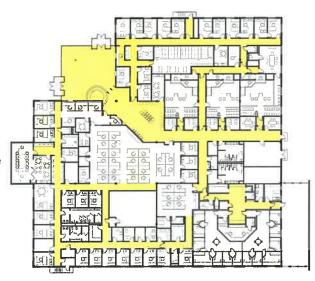






This project was an extensive renovation of a 15 year old, 32,000 square foot, single story office building located in downtown Parkersburg, West Virginia. The building was purchased by the Wood County commission with the purpose of bringing together 3 government functions that had outgrown the 3 separate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

Construction & Facilities Management Office Expansion

WVARNG



LOCATION: Charleston, WV

SIZE: 19,935 SF

COST: \$3.5M

COMPLETION: 2008

CONTACT: MAJ Dan Clevenger WVARNG 1707 Coonskin Drive Charleston, WV 25311 304.561.6539

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



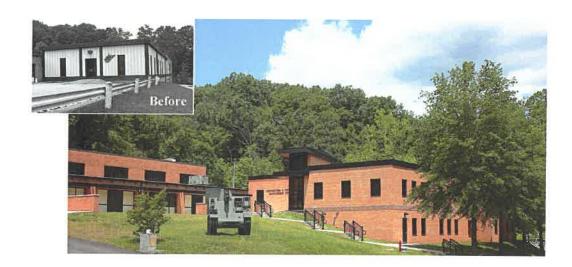
The Construction and Facilities Management Office (CFMO) Expansion project will bring all of the operations of the CFMO together under one roof. The branches that will occupy this facility include: Director of Engineering, Environmental, Planning and Programming, Facility Operations & Maintenance, Business 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.



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

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

Interior Before Pictures













The New Girl Scouts of Black Diamond Council Volunteer Resource Center and Girl Zone/Urban Camp is located on the West Side of Charleston, WV. The 24,650 SF project completely renovates and upgrades 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. By the time the Girl Scouts took possession of the building, it had fallen into a state of disrepair. The facility required environmental remediation, and the entire roof structure was damaged and had to be removed.

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 program for the facility includes administrative offices, community/meeting gathering spaces, as well as a small hotel (Urban Camp) for Girl Scouts visiting Charleston. The Girl Scouts undertook the effort to transform the facility, creating an architectural style that would appeal to girls and young women, while utilizing colors and materials that would not become dated.

The main building brings all of the operations of the Girl Scouts of Black Diamond Council together under one roof and on one level. This building includes a volunteer meeting room, employee office space, flexible conference spaces, and a retail shop. The Virginia Street façade of the existing facility was removed, and more contemporary elements are utilized to speak to each of the functions. The Girl Zone/ Urban Camp reflects a more residential/outdoor tone with the use of a wood veneer, while the retail store has floor to ceiling storefront.









The storefront is etched with images of girl scouts and scouting slogans. The storefront is backlit 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 masonry veneer. Each zone has a unique identity.

The adjacent Girl Zone/Urban Camp conveys the feeling of a hotel or hostel and offers a place that 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 socialize. The "hotel rooms" utilize a dormitory arrangement, while the finishes and furnishings will be more like a youth hostel 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!"

Goodwill Prosperity Center

Historic Renovation



LOCATION: Charleston, WV

SIZE: 10,200 SF

COMPLETION: 2015

COST: \$960,000

CONTACT: Cheri Bever, President Goodwill Industries 215 Virginia Street, W. Charleston, WV 25302 304.346.0811











Goodwill's newly renovated Prosperity Center is located on Virginia Street (West) in Charleston. This facility will help prepare members of the community for the workforce, and will expand Goodwill's outreach opportunities. Inside the facility is several classrooms, a computer room, and a Career Center that is equipped with all the tools needed to prepare and apply for a job. A spacious and colorful lobby provides a relaxed atmosphere for visitors. Inside the center is a "Suited for Success" room where work-appropriate clothing will be available to those who need it.

The building, which was once the Charleston Transit Authority's bus garage, underwent a major exterior transformation. Layers of stucco were removed to open up the old garage bays, and glass was infilled into these openings to give the center a tremendous amount of natural light. The original brick was exposed, repointed, and painted. The improvements made to the exterior showcase the historic nature of the building while upholding the modern amenities needed for today.

The Houston Coal Company Store

Historic Renovation



LOCATION: Kimball, WV

SIZE: 7,100 SF

COMPLETION: Fall 2015

COST: \$1.8M



ZMM Architects and Engineers, in association with Mike Gioulis, Historic Preservation Specialist, have been assisting the McDowell County Economic Development Authority with the restoration of the Houston Coal Company Store. The Company Store, located in Kimball, WV, is at the intersection of Route 52 and Carswell Hollow Road. It was constructed in 1923 and served as a coal company store until the 1940's. The building has since served as a dairy company, office and storage facility for a construction company, and currently sits vacant.

The 7,100 square foot facility includes a full basement, storage sheds, and a loading dock. The main portion of the building is 5,750 square feet, excluding the storage sheds and loading dock. The project team began by investigating all available historical documentation for the original facility. ZMM and Mr. Gioulis also visited the building site several times to assess the conditions of the architecture, structure, building systems, and surrounding cultural landscape.

To ensure the accuracy of the proposed improvements, a building information model (BIM) was created for analysis and documentation. The model was created based upon measurements and documentation performed on-site by the project team. Once the documentation was complete, a proposed floor plan was developed that included office space for the McDowell County Economic Development Authority staff, display areas for coal heritage artifacts, public restrooms, a gift shop, and a coffee shop. There are also plans to convert the outdoor storage sheds into an artisan's row.

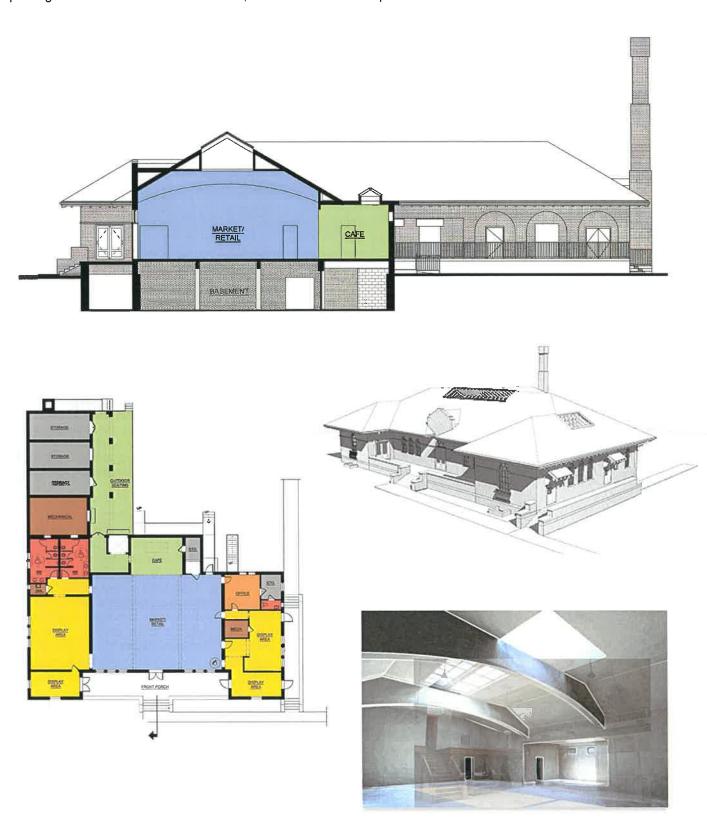
Based upon the investigative results of the facility's existing conditions and its proposed use, recommendations and a proposed cost estimate were created. All proposed improvements were developed based upon the Secretary of the Interior's Standards for Rehabilitation (Department of Interior regulations, 36 CFR 67), and were reviewed with the State Historic Preservation Office.

A final draft of the report was issued that prioritized the recommendations:

- Phase I Building Shell Restoration (stabilize and restore)
- Phase II Building Systems Integration (mechanical, plumbing, and electrical systems)
- Phase III Interior Restoration and Reuse (Including the removal of construction not original and not historically significant to the building)

The Houston Coal Company Store

Based upon the availability of the initial funding, ZMM prepared bidding documents for Phase I. Once this documentation was complete, funding became available for the remaining phases of the work. The improvement package was bid in the summer of 2014, and all work was completed in the fall of 2015.



Client References

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

John Robertson, Director Charleston Coliseum & Convention Center 200 Civic Center Drive Charleston, WV 25301 304.345.1500

MAJ Dan Clevenger WVARNG 1707 Coonskin Drive Charleston, WV 25311 304.561.6446

Mickey McLaughin, Director Plaza Mall Management 160 North Gulph Road King of Prussia, PA 19406 610.337.9272

Mr. Blair Couch, Commissioner Wood County Commission No. 1 Court Square, Suite 205 Parkersburg, WV 26101 304.424.1978

Ms. Beth Casey, CEO Girl Scouts of Black Diamond Council 3211 Virginia Street, East Charleston, WV 25302 304.345.7722

