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

State of West Virginia
Centralized Expression of Interest

10/28/21 11:49:20
WV Purchasing Division

Proc Folder: 953403 **Doc Description:** Mountaineer Challenge Academy South Facility Renovations EOI **Proc Type:** Central Purchase Order			**Reason for Modification:**
Date Issued	**Solicitation Closes**	**Solicitation No**	**Version**
2021-10-15	2021-10-28 13:30	CEOI 0603 ADJ2200000008	1

BID RECEIVING LOCATION

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

VENDOR

Vendor Customer Code: 206059
Vendor Name : ZMM, Inc. (dba ZMM Architects and Engineers)
Address :
Street : 222 Lee Street, West
City : Charleston
State : WV **Country :** USA **Zip :** 25302
Principal Contact : Adam R. Krason
Vendor Contact Phone: 304-342-0159 **Extension:** 234

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

Vendor Signature X AR RK **FEIN#** 55-0676608 **DATE** 10-28-2021

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

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

(Name, Title)
Adam R. Krason, AIA, LEED AP, Principal
(Printed Name and Title)
222 Lee Street, West, Charleston, WV 25302
(Address)
304-342-0159 304-345-8144
(Phone Number) / (Fax Number)
ark@zmm.com
(email address)

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contained herein; that this bid, offer or proposal constitutes an offer to the State that cannot be unilaterally withdrawn; that the product or service proposed meets the mandatory requirements contained in the Solicitation for that product or service, unless otherwise stated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

By signing below, I further certify that I understand this Contract is subject to the provisions of West Virginia Code § 5A-3-62, which automatically voids certain contract clauses that violate State law.

ZMM, Inc. (dba ZMM Architects and Engineers)
(Company)

(Authorized Signature) (Representative Name, Title)

Adam R. Krason, AIA, LEED AP, Principal
(Printed Name and Title of Authorized Representative)

10-28-2021
(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:

Vendor's Name: ZMM, Inc. (dba ZMM Architects and Engineers)

Authorized Signature: _____ Date: 10-28-2021

State of West Virginia

County of Kanawha, to-wit:

Taken, subscribed, and sworn to before me this 28 day of October, 2021.

My Commission expires 10-6, 2023.

AFFIX SEAL HERE

Official Seal
Notary Public, State of West Virginia
Lisa E Bowles
ZMM, Inc.
222 Lee Street, West
Charleston, WV 25302
My Commission Expires Oct. 6, 2023

NOTARY PUBLIC Lisa E. Bowles

ZMM
ARCHITECTS
ENGINEERS

October 27, 2021

Mr. David Pauline, Senior Buyer
Department of Administration, Purchasing Division
2019 Washington Street, East - PO Box 50130
Charleston, West Virginia 25305-0130

Subject: MCA South Facility Renovations Design Project (CEOI ADJ2200000008)

Dear Mr. Pauline:

ZMM Architects and Engineers is pleased to submit the attached information to demonstrate our experience and our qualifications to provide professional architectural and engineering services for the Mountaineer Challenge Academy South (MCA-South) Facility Renovations Design project in Montgomery. ZMM Architects and Engineers recently assisted the West Virginia Army National Guard (WVARNG) with the initial two phases of improvements at the MCA - South, which involved the renovation of both Maclin Hall and the Tech Center at the former WVU Tech Campus in Montgomery to accommodate the expansion of the Mountaineer Challenge Academy. The Maclin Hall dormitory was renovated to include security and life-safety enhancements, as well as new utility service entrances and upgraded shower facilities, while the Tech Center received more extensive renovations including a new roof and interior improvements, a new HVAC system, ceilings, finishes, LED lighting, and new toilet facilities.

The previous improvements to Maclin Hall and the Tech Center were successfully implemented by ZMM, the WVARNG, the Challenge Academy, and MCS Construction. The projects were completed in a condensed timeframe (during a global pandemic), delivered on budget, and with few change orders during the construction phase. We are hopeful that you observed our commitment to design quality, budget and schedule control, and client service demonstrated on these projects.

Established in 1959, ZMM is a West Virginia based, full-service A/E firm, and is noted for design excellence and client focus. ZMM's ability to provide comprehensive building design services has led to our firm becoming a trusted resource for complex renovation projects throughout the West Virginia. As a full-service design firm with a longstanding relationship serving the West Virginia Army National Guard (WVARNG), ZMM has the right combination of technical expertise and experience to help successfully deliver the project. Our portfolio includes:

- Experience completing two previous phases of improvements to Maclin Hall and the Tech Center.
- Experience collaborating with the WVARNG.
- Experience with complex renovation projects.
- Experience providing design services in Montgomery.

In addition to our previous work on MCA-South ZMM's experience providing design and construction phase services for the WVARNG includes the Joint Interagency Training and Education Center (JITEC) and ACP at Camp Dawson, the Jackson County AFRC, the Glen Jean AFRC, the Tackett Family Readiness Center, the Morgantown Readiness Center, and the Logan-Mingo Readiness Center. This experience also includes a variety of renovation projects for the WVARNG including the Construction and Facilities Management Office (CFMO), the Marshall County Readiness Center, and Camp Dawson Building 202, 245, 246, and 301 Renovation projects.

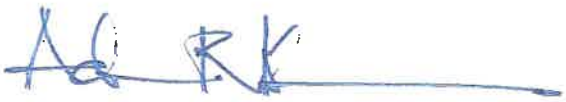
In addition to our WVARNG renovation design experience, ZMM's has designed improvements to some of West Virginia's most prominent buildings including the Charleston Coliseum and Convention Center, the Culture Center, the Clay Center, and the State Capitol. Several of our renovation projects have been recognized with statewide and national design awards. *In fact, ZMM's commitment to design quality has been recognized by the American Institute of Architects West Virginia Chapter with twenty-four design awards since 2005 – an achievement that is unrivaled in West Virginia.*

Finally, as noted above, ZMM has extensive experience providing design and planning services at the former WVU Tech campus in Montgomery. This experience includes master planning services for BridgeValley Community and Technical College, as well as providing design services to renovate the 77,000 SF Davis Hall into their main academic building in Montgomery. ZMM has also assisted West Virginia University with a project at the Engineering Classroom Building (ECB), and assisted KVC develop plans to improve an existing dormitory (Ratliff Hall). Most recently, ZMM completed an assessment of Orndorff Hall for the West Virginia Department of Agriculture.

Thank you for taking the time to review the attached expression of interest that includes information about our proposed approach for the MCA South Facility Renovations Design project, as well as ZMM's qualifications, and relevant project experience. Additionally, please visit our website at www.zmm.com to see the full range of renovation and education projects that we have designed. We appreciate your consideration for this important endeavor and look forward to continuing our work for the WVARNG and the Mountaineer Challenge Academy - South.

Respectfully submitted,

ZMM Architects and Engineers



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

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ZMM
ARCHITECTS
ENGINEERS

MOUNTAINEER CHALLENGE ACADEMY – FACILITIES RENOVATIONS DESIGN

Project Approach, Management Plan, Quality Control Plan, Cost Control Plan

Background and Project Understanding

ZMM Architects and Engineers recently assisted the West Virginia Army National Guard (WVARNG) with the initial two (2) phases of improvements at the Mountaineer Challenge Academy – South (MCA – South), which involved the renovation of both Maclin Hall and the Tech Center at the old WVU Tech Campus in Montgomery to accommodate the expansion of the Mountaineer Challenge Academy. The Maclin Hall dormitory was renovated to include security enhancements to respond to the new user's needs, as well as new utility service entrances, and shower room improvements. The Tech Center received more extensive renovations including a new roof. The lower level of the Tech Center was renovated to include two new classroom spaces and new toilet rooms, while the upper level was completely renovated into new classroom and office space. This upper level now contains three computer classrooms and one standard classroom. A new HVAC system, ceilings, finishes, and LED lighting were also a part of this renovation.

The previous phases of the project were successfully implemented by ZMM, the WVARNG, the Challenge Academy, and MCS Construction. The projects were completed in a condensed timeframe (during a global pandemic), delivered on budget, and with few change orders during the construction phase. We are hopeful that you observed our commitment to design quality, budget and schedule control, and client service demonstrated on these projects.

The next phase of the project involves several distinct tasks, which are outlined below:

- Renovate existing space in Maclin Hall including the Laundry Room.
- Improvements to the HVAC system in the Tech Center (Chiller).
- Remove and replace exhaust fans and ventilators in the Tech Center dining area.
- Development of a dry goods storage room adjacent to the Tech Center dining area.

ZMM Architects and Engineers is uniquely qualified for this project because of our recent experience providing design services for the initial phases of the MCA-South project as well as our experience working with the West Virginia Army National Guard (at Camp Dawson) on the Mountaineer Challenge Academy Job Challenge Facility. In addition to our previous Challenge Academy experience, ZMM has extensive experience providing design and planning services at the former WVU Tech campus in Montgomery. We provided Master Planning services to

BridgeValley Community and Technical College and helped to renovate the 77,000 SF Davis Hall into their main academic building in Montgomery. We have also assisted West Virginia with a project at the Engineering Classroom Building (ECB), and assisted KVC develop plans to improve an existing dormitory (Ratliff Hall). Finally, ZMM recently completed an assessment of Orndorff Hall for the West Virginia Department of Agriculture.

The technical nature of the proposed renovation project(s) also demonstrates the need for a full-service design team with experience working with the West Virginia Army National Guard. ZMM has the technical professionals - including architects, engineers (civil, structural, mechanical, and electrical), and interior designers – needed to address every aspect of this project. If selected for this engagement, ZMM will staff the project with the architects and engineers that have previously worked successfully on a variety of educational projects as well as renovation projects for the WVARNG - including the previous phases of the MCA-South project, the MCA-Jobs Challenge Facility, Camp Dawson Building 202, 301, 245 and 246 Improvements, the Marshall County Readiness Center, and the CFMO Expansion.

Mountaineer Challenge Academy South: Renovation Approach

Renovation projects require a unique approach, and ZMM has provided design services on renovation projects throughout West Virginia. The first phase in a successful renovation project involves conducting a thorough examination of the existing facilities. In this case, these services have already been completed by ZMM as part of the previous phases of improvements. ZMM recommends completing additional assessment and planning efforts to help confirm the scope and budget for the improvements.

Once the first phase is completed, ZMM will develop plans, specifications, and bidding documents for the proposed improvements. Drawings, specifications, and estimates will be submitted for review at 35%, and again at 95%, and 100%. The project will be developed to comply with current federal, state, and local building codes, fire codes, and military construction regulations. Our recent experience working with the WVARNG will ensure that all documents meet your requirements and standards – saving the WVARNG additional effort and expediting the design phase of the project. Once the documents have been approved, ZMM will assist with the bidding and construction phases of the project, including participation in a pre-bid meeting, developing any required addenda, responding to RFI's, reviewing submittals, and conducting and preparing minutes of construction progress meetings. Our efforts will continue through substantial and final completion inspections and include an eleven-month warranty walk

through. *Our goal throughout this process will be to act as part of the WVARNG team, with the objective of ensuring the seamless delivery of your project.*

Mountaineer Challenge Academy South: Project Management Plan

ZMM Architects and Engineers proposes to provide services on the project with a team of design professionals that have worked together on a variety of educational facilities and WVARNG facilities throughout the state, including several projects in Montgomery. The team will be led by Adam Krason (Principal) and Nathan Spencer (Project Manager and Architect). Mr. Krason and Mr. Spencer have led ZMM's effort on ZMM's recent work for the WVARNG, including the MCA - South Renovations (2 previous phases), MCA - Jobs Challenge Facility, Kenova Secure Area Renovation, the Camp Dawson Building 202, 301, 245, and 246 Renovation projects, the JITEC, the Camp Dawson ACP, the Marshall County Readiness Center, the Jackson County AFRC, the Morgantown Readiness Center, and the CFMO Expansion. Other key team members will include:

Bob Doeffinger PE	Engineering Principal/Mechanical Engineer
James Lowry, PE	Mechanical Engineer
David Gunnoe, PE	Electrical Engineer
Ian Haddox	Electrical Designer
Mike White, PE	Structural Engineer
Mike Flowers	Plumbing Designer
Mark Epling, AIA	Specifications Writer
Keith Gonzales	Construction Administrator
Amy Rhodes	Construction Administrative Assistant

ZMM's team has successfully collaborated on multiple projects for the WVARNG, and each team member is familiar with the standards, requirements, and processes that are utilized by the Guard.



ZMM Quality Control Plan

Quality control during the design phase begins with the selection of team members with experience working on projects that are like the current effort. In this case the ZMM team has recently helped to successfully implement the previous phases of the MCA - South improvements. ZMM Architects and Engineers staff possesses the WVARNG renovation design experience to ensure the success of the project. Quality control during the design phase will occur through regular, documented, project meetings between the design team and the Guard. In addition to the regular design phase meetings more formal QA/QC will occur at the end of each design phase. A more detailed description of the design phase quality control plan is noted below:

1. Selecting the Project Team

   ZMM's diverse staff ensures that each project team is made up of highly qualified members, each dedicated to the project's success. Project team members are selected based upon relevant experience, and ability to help achieve the client's vision.

2. Identifying Project Requirements

   Project team members are fully integrated in each phase of the design process, ensuring a quality project from the commencement. The project requirements are included in a 'Basis of Design' that each member of the project team can access. The 'Basis of Design' helps guide important project decisions.

3. Identifying Client Expectations

   Knowing and understanding our clients' expectations is our goal. This knowledge gives ZMM a baseline for exceeding expectations. We will commence the design effort with a planning session to help identify your vision for the project.

4. Ongoing Project Reviews

   As part of the ongoing project reviews, we conduct quality assurance evaluations during each stage of the project:

   Schematic Design Phase (35%)
   Design Development Phase (65%)
   Construction Documents Phase (95%)
   Construction Administration Phase

   ZMM has developed a series of QA/QC review documents that are completed during each phase, and include a programmatic review, technical review, and review of the project schedule and budget.

5. Post Project Review

   At the completion of every project, ZMM staff members participate in a learning session to gain insight useful for future projects.

6. Staff Training, Assessment and Enhancement

   Ongoing staff development and training is very important to ZMM and providing increased opportunities for learning and advancement leads to improved employee performance and more successful projects for our clients.

ZMM Cost Control Plan

As part of our effort to ensure our ability to meet the WVARNG's budget, ZMM will rely on both historic bidding data as well as independent estimates to verify the project budget. For this project ZMM would utilize Win Strock to provide the independent estimate. ZMM and Mr. Strock have successfully collaborated on multiple projects, including:

- Camp Dawson Building 202, 245, 246, and 301 Improvements
- Marshall County Readiness Center
- Logan-Mingo Readiness Center
- Parkersburg Readiness Center
- Williamstown Elementary School
- Building 5, 6, & 7 Improvements
- Beech Fork Lodge
- WV State Police Information Services Center
- Edgewood Elementary School
- WV State Lottery Headquarters Renovation
- Brooks Manor Addition and Renovation
- WVRTP Building 740 Improvements

ZMM has a history of working to successfully projects under challenging budget and schedule constraints for the WVARNG. We commit to working with you to meet the budget and schedule for the Mountaineer Challenge Academy South Facility Renovations Design project. ZMM understands the importance of the Mountaineer Challenge Academy program, and will provide every resource necessary to support the program, and ensure the continued success of the program in Montgomery.

ZMM
ARCHITECTS
ENGINEERS

ABOUT
ZMM ARCHITECTS & ENGINEERS

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 with our in-house team. Our integrated design approach makes ZMM unique among architecture/engineering firms, and helps to ensure the quality of our design solutions by providing more thoroughly coordinated construction documents.

ZMM has maintained a diverse portfolio since the founding of the firm. Early commissions included higher education projects for West Virginia University and Concord College, State Office Buildings 5, 6, & 7 on the State of West Virginia Capitol Campus, and armories for the West Virginia Army National Guard.

Maintaining a diverse practice for over 60 years has provided ZMM with extensive experience in a variety of building types, including educational facilities, governmental facilities (military, justice, correctional), healthcare facilities, recreation facilities, commercial office space, light industrial facilities, and multi-unit residential buildings.

The original partners transferred ownership of the firm to Robert Doeffinger, PE and Steve Branner in 1986. Mr. Doeffinger and Mr. Branner helped guide and expand the firm to its present size of 35 people. Over the past 20 years David Ferguson, AIA, and Adam Krason, AIA, LEED-AP joined in ownership of the firm. In 2020, Randy Jones also joined in ownership of the firm when ZMM acquired Blacksburg-based OWPR Architects & Engineers to create a regional design firm that employs more than 50 highly-skilled professionals.

ZMM has become a leader in sustainable / energy-efficient design, and a trusted resource on complex renovation projects. ZMM's unique renovation project approach and ability to

ZMM ARCHITECTS ENGINEERS

About ZMM Architects & Engineers (cont.)

provide comprehensive design services has also led the firm to be selected to improve landmark buildings, including the Charleston Coliseum & Convention Center, the Clay Center for the Arts and Sciences, the State of West Virginia Culture Center, and the West Virginia State Capitol Building. Additional significant projects designed by the firm include the Explorer Academy (Cabell County Schools), the Logan-Mingo Readiness Center, the Manassas Park Community Center and Natatorium, the design of the Fourth High School (Frederick County Public Schools), the new Harrington Waddell Elementary School (Lexington City Schools), CAMC Teays Valley ICU, and Ridgeview Elementary School (Raleigh County Schools). ZMM has also provided design services on more than 300 school projects throughout the region.

ZMM's building-related design services include:

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

Design
Architectural Design
Interior Design
Lighting Design
Sustainable Design
Landscape Architecture

Engineering
Civil Engineering
Mechanical Engineering
Energy Consumption Analysis
Structural Engineering
Electrical Engineering
Net Zero Buildings

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

As ZMM looks to the future, we remain committed to the ideal of providing high-quality, client-focused design solutions that meet budget and schedule requirements. We listen, we respond promptly with innovative and efficient solutions, and we deliver quality projects and develop lasting relationships. You see us in YOUR community every day.

AWARD WINNING DESIGN

2020

AIA West Virginia Chapter: Merit Award
Achievement in Architecture for New Construction
Mountain Valley Elementary School
Bluefield, West Virginia

AIA West Virginia Chapter: Merit Award
Achievement in Architecture
Ridgeview Elementary School
Crab Orchard, West Virginia

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

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AWARD WINNING DESIGN

AIA 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

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

ZMM
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JOINT INTERAGENCY TRAINING AND EDUCATION CENTER (JITEC)

LEED GOLD

LOCATION	SIZE	COMPLETION	COST	AWARDS
KINGWOOD, WV	283,000 SF	2013	$100M	2011 AIA WV HONOR AWARD

ZMM, in association with AECOM, provided architectural and engineering design services for JITEC, an Army National Guard campus-style facility for training and operational mission support.

Sited on 30 acres near Camp Dawson, this project included the design of a new operations building, expansion of the billeting facility, renovation of the training facility, and creation of a new base access control point (ACP) and visitor's center. The vision behind the site design and updated master plan is that of a college campus atmosphere. The facility is designed to meet all anti-terrorism/force protection criteria and has achieved LEED Gold Certification. The operations building is prominently sited as the main focal point upon entering Camp Dawson and consists of four distinct areas: the Joint Operations Center (JOC), a suite of secure training rooms, base headquarters and JITEC administrative offices, and a server and telecommunications room.

Built to SCIF standards, the JOC contains a state-of-the-art command center, housing 48 permanent work stations in a theater-style configuration, facing a large video wall, flanked by conference rooms and offices for both officers and support staff. The billeting (hotel) expansion's lobby design provides a hotel atmosphere, underscored by the Liberty Lounge, an upscale bar and restaurant area, with wood finishes salvaged from the gymnasium floor of the former Preston County Armory.

ZMM ARCHITECTS ENGINEERS

JACKSON COUNTY ARMED FORCES RESERVE CENTER

LOCATION	SIZE	COMPLETION	COST
MILLWOOD, WV	75,000 SF	2011	$20M

The building design was inspired by the adjacent Georgian-style Order of the Eastern Star facility.

The primary user for the WVARNG will be DET 1 821st Engineering Company, supported by a FSC of the 1092nd. USAR occupants include PLT AMMO 261 OD and PLT 1 (Postal) and PLT 6 (Postal) of the 44th Personnel Company. An expanded drill hall serves as a convention and meeting space. The relationship between the structures became crucial to the site layout. Once the aesthetic of the building was established, the massing of the facility was defined by breaking down the facility into smaller mass elements. The larger programmatic elements, such as the drill hall and the storage areas, employ an aesthetic that more closely implies their function.

The layout of the facility includes a main entry with the recruiting, family support, and administrative areas located on separate sides. A transverse wing houses all functions that have the potential for public use, while all primary military spaces developed along a similar perpendicular wing. This allows for separate entries to be developed for public functions, while the remainder of the facility can be secured. The layout also creates a large central courtyard, or parade field, that would be located at lower grade to define the edge facing the river. This edge is defined by a canopy that connects storage and locker areas to the expanded drill hall.

ZMM ARCHITECTS ENGINEERS

LOGAN-MINGO READINESS CENTER

LOCATION	SIZE	COMPLETION	COST	AWARDS
HOLDEN, WV	54,000 SF	2015	$12M	2017 AIA WV MERIT AWARD

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

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

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

MORGANTOWN READINESS CENTER

LOCATION	SIZE	COMPLETION	COST
MORGANTOWN, WV	54,000 SF	2013	$22M

The Morgantown Readiness Center is a unique military facility. While supporting traditional military functions including the 1-201st Field Artillery, a significant portion of the building was designed for the 249th Army Band.

The Readiness Center contains a performance hall, pre-function spaces, as well as a variety of training and rehearsal areas. The stage is a large rehearsal space with an adjacent elevated recording area. A large operable partition separates the auditorium from the drill hall. Acoustically, this challenge was met by creating a drill hall with an irregular shape contained within a rectilinear, sloped barrel arch form.

The facility is located on an abandoned airport runway approximately 20 miles from Camp Dawson. As troops will often travel through the Readiness Center, the facility needed to function as a "gateway." This was accomplished by utilizing similar materials and a tower-like feature to mark entry.

The Morgantown Readiness Center is also a sustainable building. The U-shaped layout of the facility improves access to daylighting and views, while also limiting public access to the Guard's administrative and storage areas. The final result is a harmonious composition that reflects both its function and the environment.

ZMM ARCHITECTS ENGINEERS

CONSTRUCTION & FACILITIES MANAGEMENT OFFICE

LOCATION	SIZE	COMPLETION	COST	AWARDS
CHARLESTON, WV	19,935 SF	2008	$3.5M	2009 AIA WV MERIT AWARD

The Construction and Facilities Management Office (CFMO) Expansion project brought all of the operations of the CFMO together under one roof.

The branches that occupy this facility include the Director of Engineering, Environmental, Planning and Programming, Facility Operations & Maintenance, Business Management, Resource Management, and Design and Construction. This expansion 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.

A transitional space was designed to connect the new structure to the existing facility, 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 expanses of glazing located to capture indirect light and views of Coonskin Park.

ZMM ARCHITECTS ENGINEERS

GLEN JEAN
ARMED FORCES RESERVE CENTER

LOCATION	SIZE	COMPLETION	COST
GLEN JEAN, WV	110,000 SF	2004	$17M

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

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

The Glen Jean AFRC also employs a sloped natural-stone buffer to meet federal anti-terrorism and force protection guidelines. The project has also become an important community resource and served as a meeting location during the development of the nearby Summit Bechtel Family National Scout Reserve.

ZMM ARCHITECTS ENGINEERS

BRIDGEVALLEY COMMUNITY & TECHNICAL COLLEGE DAVIS HALL

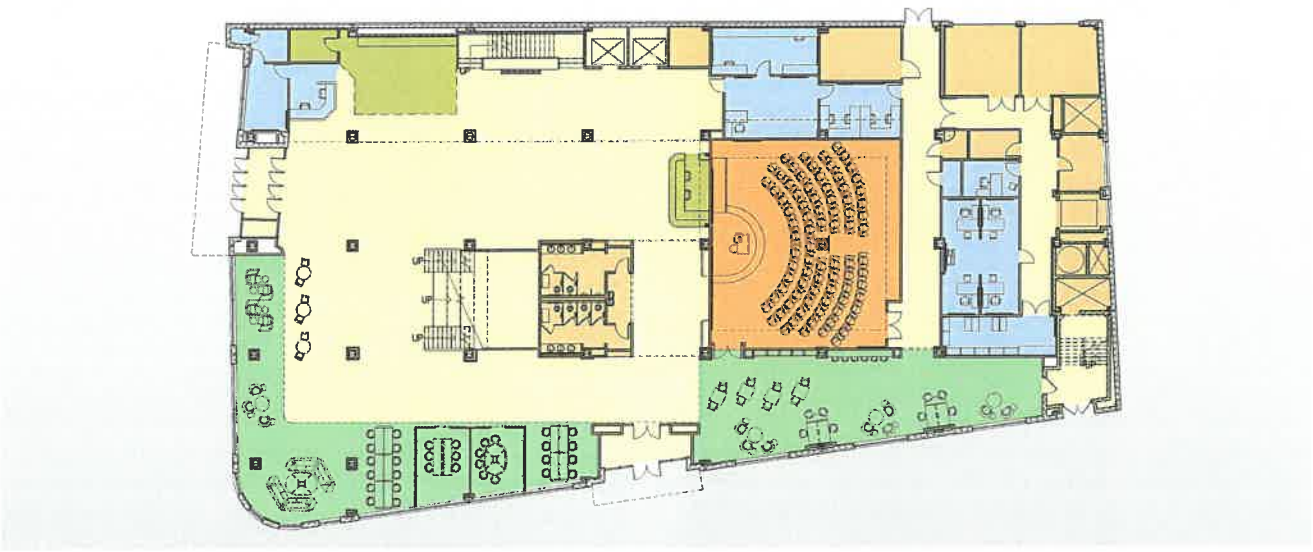
LOCATION	SIZE	COMPLETION	COST
MONTGOMERY, WV	77,215 SF	2012	$4M

ZMM was selected by BridgeValley CTC and the WV Community and Technical College System to provide architectural and engineering design services for the renovation of Davis Hall.

Davis Hall is a classroom and laboratory facility constructed in 1970 for WVU-Tech. The exterior consists of architectural pre-cast concrete panels and a curtain wall system. The interior includes an open, two-story atrium, large auditorium, and five levels of office and classroom space that are constructed of demountable partitions. Prior to commencing the design effort, ZMM completed a thorough assessment of the facility. The assessment revealed significant life-safety concerns that were not previously identified, including the use of non-plenum rated plastic insulated wiring throughout the return air plenums, mechanical units located above ceilings in exit stairs, and a lack of adequate fresh air for building occupants. As part of this initial assessment, ZMM assisted in developing a scope of work for the renovation project, as well as a long-range plan for future improvements.

The scope of the renovation included life-safety upgrades (replacing non-plenum rated wiring and fire alarm system), improvements to the building envelope (replacing curtain wall and roofing), hazardous material abatement, mechanical improvements (replacing boiler, chiller, and outdoor air ventilation system), and interior improvements (replacing ceilings and lighting, upgrading furnishings).

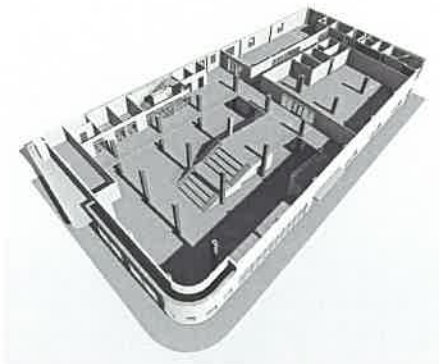
ZMM ARCHITECTS ENGINEERS



BRIDGEVALLEY CTC
STONE & THOMAS

LOCATION	SIZE	COMPLETION	COST
CHARLESTON, WV	128,021 SF	TBD	$26M

BridgeValley Community & Technical College plans to renovate the existing Stone & Thomas building in downtown Charleston and relocate their headquarters to this location.



The Stone & Thomas building is five stories with a full basement and mezzanine level. Originally a department store, it consists of an open floor plan and a two-story main floor. ZMM, in association with Michael Gioulis, is assisting in the design and development. The existing building has several elements that will be restored in an effort to obtain historic tax credits. The exterior of the building will be maintained in its current configuration, except for adding windows and mechanical louvers on the alley elevations. The street elevations will be restored, including glass-framed entrances, marble-clad façades, and the iconic building signage. New contemporary elements will complement the historic features.

The renovations include creating a student union and life spaces on the basement level. The street level will contain student life spaces, digital learning commons, 100-person classroom, and lecture stair to access the mezzanine level. The mezzanine will contain student services spaces. The second and third floors will contain classrooms, as well as administrative and faculty offices. The fourth floor is comprised of allied health programs, with a simulated hospital floor for an enhanced education experience. The fifth floor contains multi-function laboratory spaces.

ZMM ARCHITECTS ENGINEERS

WOOD COUNTY TECHNICAL CENTER

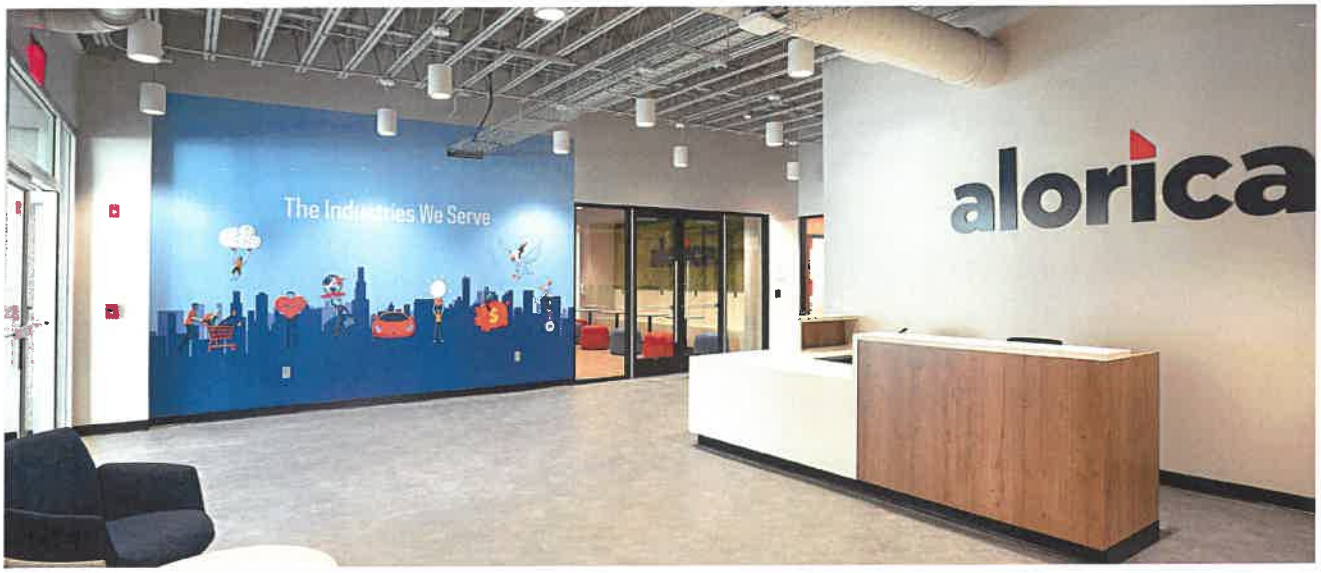
LOCATION	SIZE	COMPLETION	COST
PARKERSBURG, WV	59,500 SF	2020	$10.4M

This project consisted of a two-story, 28,500 SF addition and renovation to the existing single-story 31,000 SF facility.

One-story and two-story areas were constructed on the south end of the existing building, which relocated the building's main entrance and added a bus loop and parking lot. The addition showcases the new entry lobby and a flexible 3,500 SF commons space for multiple classroom settings, large group events, and other public/community functions. The existing facility was dated and located adjacent to Parkersburg South High School. One of the owner's goals was to enhance the center's educational spaces and provide a separate identity for the technical center, differentiating it from the high school, as the center serves all students in Wood County.

The licensed practical nursing and adult education programs were relocated to the addition from another facility. 4,000 SF were added to the undersized welding shop. The new two-story area, administrative office area, and welding lab were constructed with a brick veneer façade. The new stair towers and entrance were clad in metal wall panels. The office suite areas were constructed with partitions, providing flexibility for future expansion or reconfigurations. The existing building was reconfigured to accommodate an options classroom, ProStart catering kitchen and classroom, and a therapeutic lab/classroom. Exterior windows and insulated panels were replaced, along with exterior doors and door hardware.

ZMM ARCHITECTS ENGINEERS



INTUIT PROSPERITY HUB

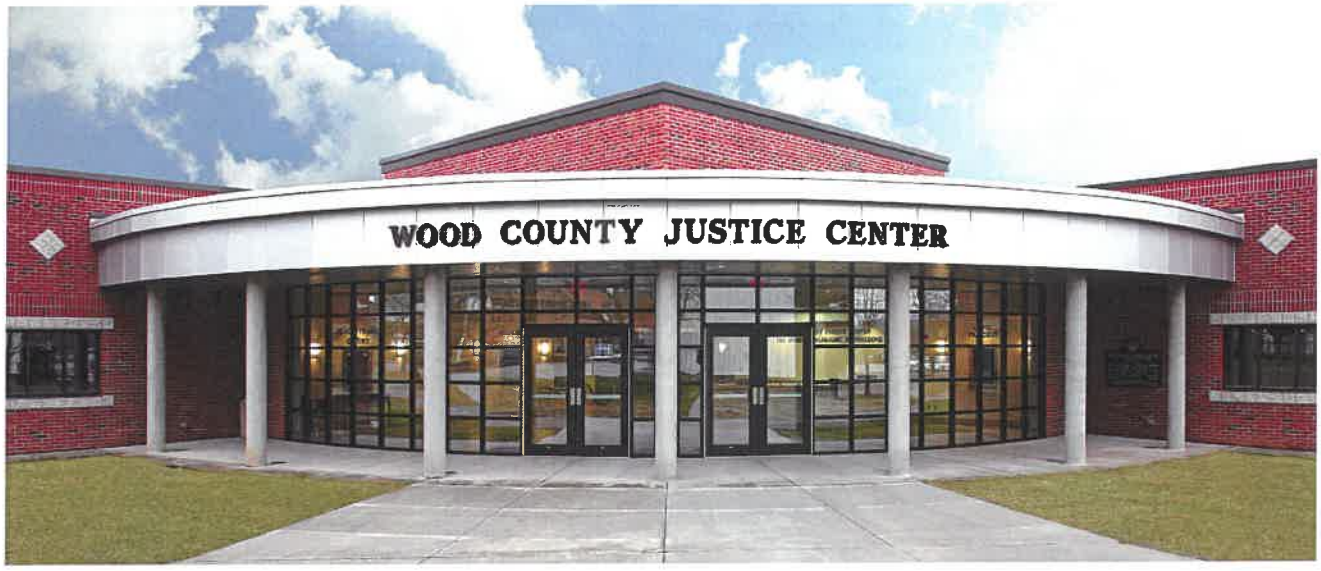
LOCATION	SIZE	COMPLETION	COST
BLUEFIELD, WV	44,000 SF	2020	$4.4M

ZMM worked in collaboration with CBRE, Gensler, the City of Bluefield, and Pray Construction to assist Intuit with the development of its next "Prosperity Hub."

The former First National Bank building was constructed in 1970. The two-story modern building with marble, aluminum, and glass veneer is comprised of two connecting structures and a parking garage. CBRE was responsible for project management, while Gensler was responsible for programming and the tenant fit-up schematic design. ZMM was responsible for core and shell architectural and engineering work, as well as the fit-up portion from design development through completion. ZMM's effort commenced with a facilities assessment to assist with the scope and budget, which determined the condition of the major building systems, and identified immediate and long-term enhancements required.

The intent was to convert the facility into an office space/customer support center with administrative suites, training rooms, and a break space. The upper levels have an open plan for workstations. One of the challenges involved converting this building with varying floor heights into an accessible office, which was met through the use of creative space planning, refurbished elevators, and raised access flooring. The final design provides a contemporary, safe, and healthy work environment that highlights the branding and contemporary finishes desired by Intuit.

ZMM ARCHITECTS ENGINEERS



WOOD COUNTY JUSTICE CENTER

LEED CERTIFIED

LOCATION	SIZE	COMPLETION	COST
PARKERSBURG, WV	32,000 SF	2011	$5M

This project was an extensive renovation of a 15-year-old, 32,000 SF, 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 three government functions that had outgrown the three separate buildings that they occupied.

The renovated building consists of offices and three courtrooms for the county's Magistrate Court system, public service windows for document pickup 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 energy-efficient lighting was installed. The project was designed around the U.S. Green Building Council's New Construction and Major Renovation Guidelines and has achieved LEED Certification.

ZMM ARCHITECTS ENGINEERS

CHARLESTON COLISEUM & CONVENTION CENTER

LEED SILVER

LOCATION	SIZE	COMPLETION	COST	AWARDS
CHARLESTON, WV	283,000 SF	2018	$100M	2019 AIA WV MERIT AWARD, CITATION & PEOPLE'S CHOICE AWARD

The Charleston Coliseum & Convention Center expansion and renovation was a transformational project for both the city of Charleston and West Virginia.

Our team built on the strong authentic character of Charleston to remake the Charleston Convention Center into a more efficient, sustainable, dynamic, and iconic best-in-class destination.

The design of the expansion and renovation of the Charleston Convention Center was 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, and trapping. This set the local character. Our design started with an organizational concept inspired by this history. The Convention Center has distinct active nodes to celebrate each activity; arena, convention, and banquet. 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 allowed for simultaneous events and clarity of use. For the Convention Center to thrive, it needed a real ballroom assembly space. Located overlooking the Elk River, the ballroom pre-function space is the most dramatic feature of the center.

ZMM ARCHITECTS ENGINEERS

Adam R. Krason, AIA, LEED AP, ALEP

ZMM ARCHITECTS ENGINEERS

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
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

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

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.

Charleston Coliseum & Convention 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 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.

BridgeValley 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 BridgeValley 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.

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

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

Participated on the team that won the following awards and acknowledgements:
2020 WV AIA Merit Award Mountain Valley Elementary School, Green Valley, WV
2019 WV AIA Honor Award Charleston Coliseum & Convention Center, Charleston, WV
2018 WV AIA Citation Award Charleston EDGE, Charleston, WV
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

Nathan Spencer, AIA

Role
Project Manager, Project Architect

Professional Registrations
Registered Architect (WV)

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

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

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

Project Experience

Logan-Mingo Readiness Center, Holden, WV
Mr. Spencer was the architect on the new Logan-Mingo Readiness Center. The exterior aesthetic of the facility was driven by the location within an industrial park on a reclaimed surface mined site. The building layout was developed by working closely with the end-users to determine the appropriate configuration of building spaces to maximize the efficiency of the operations, and to respond to the unique missions of the 150th Armored Reconnaissance Squadron and the 156th Military Police (LNO) Detachment. Clear separation of "public" and "private" areas within the facility, unique office configurations related to training requirements, and the addition of State Funded additional spaces.

Jackson County AFRC, Millwood, WV
Mr. Spencer participated in the schematic design of the 76,000 SF Reserve Center in Jackson County, West Virginia. Mr. Spencer was also responsible for coordinating the production effort for the project. Mr. Spencer also produced several 3D models throughout the design process. The project is aiming for LEED Silver Certification.

Joint Interagency Education and Training Center (WVARNG), Kingwood, WV

Education
Bachelor of Architecture, University of Tennessee, 2007

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

Civic Affiliations
- American Institute of Architects, Member

Mr. Spencer participated in the schematic design of the 180,000 SF addition to the Regional Training Institute at Camp Dawson. Mr. Spencer was also responsible for coordinating the production effort for the billeting (hotel) expansion, which increased the total billeting capacity at the JITEC to 600 rooms. This project received LEED Gold Certification.

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

Charleston Coliseum & Convention Center, Charleston, WV
Mr. Spencer served as project architect on the expansion and renovation to the Charleston Civic Center. 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 completed in 2018.

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

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

Cabell County Bus Transportation Complex, Huntington, WV Mr. Spencer was the project Architect on the Cabell County Transportation Complex is located on the site of the old Cox Landing Junior High School. Challenges on the project involved retrofitting the old school and site to accommodate the new use. The rear portion of the school was demolished to make room for the new maintenance portion of the building. The remaining front section of the school was renovated to include office space, storage areas, and a new staff development room. The new maintenance area includes a high-bay metal building with 14 back to back work-bays, three of which have hydraulic bus lifts. A hand wash bay and a state of the art automatic wash bay were also included in the project. Extensive sitework was also involved in the retrofit project including a fueling station, bus parking, a sediment pond, and an extensive rework of the existing site utilities.

Highland Hospital, Charleston, WV
Mr. Spencer was the project architect on Highland Psychiatric Hospital. Mr. Spencer was responsible for coordinating the production effort for the 60,000+ SF mental health facility. Mr. Spencer also produced several 3-D models throughout the design process. This project consisted of 87,300 SF, $26M addition to Highland Hospital in Charleston. The addition included: administrative offices, training spaces, 165 patient beds, nurses stations, an out-patient treatment department, pharmacy, laundry, and building service spaces. A pedestrian bridge will connect the new facility to the existing hospital.

Beech Fork State Park, Lavalette, WV (unbuilt)
Mr. Spencer was the project architect for the new lodge and conference center at Beech Fork State Park. The facility will include guestrooms and other guest-only facilities in one area and public functions such as the restaurant, lounge, gift shop, and conference rooms in another area. All guestrooms offer a lake view, a 2-story atrium opens up at each end of the lobby with curtainwall glazing, and an indoor pool provides a transparent connection to the outdoors. A high-performance envelope was designed to eliminate thermal bridging and the potential for condensation.

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 45 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.

Selective Project Experience
Charleston Coliseum & Convention Center, Charleston, WV
Mr. Doeffinger was the mechanical project engineer on the expansion and renovation to the Charleston Civic Center project. The $100M, 300,000 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, The Pennsylvania State University, 1976
Thesis: Air Change Measurements using a Tracer Gas Technique

Bachelor of Science Mechanical Engineering, West Virginia University, 1973

Employment History
2005 - Present, President, ZMM
1983 - 2005, Vice President and Engineering Principal, ZMM
1976 - 1983, Mechanical Engineer

Civic Affiliations
- 2019 Marshall University Honorary Alumni Award of Distinction College of Engineering
- 2021 Industrial and Professional Advisory Council – College of Engineering at The Pennsylvania State University
- ASHRAE – Member of the Technical Committee Load Calculations Data and Procedures for 25 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, Philadelphia, PA One of the largest retail centers in the USA. Mr. Doeffinger has performed engineering services for the past 20 years. The project consists of an 8,000 - 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 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.

James W. Lowry, PE

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.

Relevant Project Experience
Wood County Technical Center, Parkersburg, WV
Mr. Lowry was 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 included conversion 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.

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

WV Army National Guard, Kenova Secured Area, Kingwood, WV
Mr. Lowry was 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, Kingwood, WV
Mr. Lowry was 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 Surgeons, 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 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.

HVAC Replacement Projects
Keyser Middle School - HVAC and Roof
Pleasant Hill Elementary School – HVAC and Roof
Marshall University - Replacement Multizone HVAC
Marshall University - Prichard Chiller Replace 190
WVARNG - MCA South Renovations
Nitro Construction - DOW Modular Lab BLD
WVARNG - Kenova SCIF
Clay Center -Founders Lounge Dehumidify
WVHEPC - New River CTC Various Projects
WVARNG Building 202 Renovation
Goodwill Industries. - Expansion/Renovation (Teays Valley)
New River CTC - Welding Shop
Pipestem State Park Lodge - Renovations
Walker Machinery - Belle CRC Renovations
CAMC General Hospital - Replace Chillers
GSD - Capitol Guard House
WV Higher Education Policy Commission - Southern CTC Various Projects

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.

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
New River Primary, Oak Hill, WV
Oak Hill Middle School, Oak Hill, WV
Bluefield Primary School, Bluefield, WV
Williamstown Elementary School, Williamstown, WV
Wood County Technical Center, Parkerburg, WV
Milton PK School, Milton, WV
Midland Trail High School, Hico, WV
CAMC Teays Clinic, Teays Valley, WV
Appalachian Regional Hospitals – DA Tank, Beckley, WV
Appalachian Regional Hospitals Pharmacy, Beckley, WV
Rainelle Medical Center, Rainelle, WV
Valley Health, Milton, WV
Valley Health, Huntington, WV
Mountain State Oral and Facial Surgery, Charleston, WV
Valley Park Community Center, Hurricane, WV
WVDNR Forks of Coal, Alum, WV
Marshall County Readiness Center, Moundsville, WV

Other Jobs from Past Employers:
WVU Parkersburg Center for Early Learning - Parkersburg, WV
WVU Parkersburg Applied Technology Center - Parkersburg, WV
Marsh Fork Elementary School - Naoma, WV
BridgeValley Advanced Technology Center – So. Charleston, WV
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
Monongalia County Justice Center - Morgantown, WV
Lewis Co. Judicial Annex - Weston, WV
Charleston Correctional Work Release Center - Charleston, WV
Stevens Correctional Facility - Welch, 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)

Ian Haddox

ZMM ARCHITECTS ENGINEERS

Role
Electrical Designer

Mr. Haddox is an engineering graduate with design experience in Power, Lighting (Site, General and Theatrical), Fire Alarm, Security and Nurse Call systems. He has assisted in the design of several projects that include K-12 Schools, Higher Education Facilities, Hospitals and Civic Complexes. Ian began his career with an electrical contractor, his former experiences include project controlling, scheduling and estimating large industrial and commercial projects. His demonstrated skill sets in construction, construction management, engineering and 3D BIM design have placed Ian in the unique position of having the ability to design projects based on tangible experiences.

Project Experience

Government
WVARNG – Poca Warehouse Renovations
GSD – Capitol Guard House
Wood County Courthouse

Higher Education
Southern WV CTC – Logan Campus Fire Alarm
Southern WV CTC – Williamson Fire Alarm
Southern WV CTC – Williamson Toilet Renovations
Roane-Jackson Tech Center Renovations
Roane-Jackson Tech Center HVAC Equipment Replacement
Cabell Co. CTE – Cosmetology Lab

Stone and Thomas Building – BridgeValley CTC, Charleston, WV
The Bridge Valley CTC – Stone and Thomas project is a full renovation of the existing five story Stone and Thomas Building in downtown Charleston, WV. The building was built in the late 1940's and was utilized as a shopping center for many years. It has been unoccupied since 1997 and the interior has been partially demolished. This project is currently in the design stages and is unique in the fact that there are some historical preservation aspects that need to be considered while still delivering all of today's technologies. Mr. Haddox is tasked with designing the fire alarm, security, A/V and networking systems of this new state of the art higher education facility.

CAMC Memorial - 6th Floor Front Fit-Out, Charleston, WV
Mr. Haddox is the electrical designer on the fit-out of the existing sixth floor of CAMC Memorial Hospital. The nearly 38,000 SF design-build project is in collaboration with BBL

Education
Bachelor of Science, Electrical Engineering, West Virginia University, 2009

Employment History
2018 - Present, Electrical Designer, ZMM
2018, Engineering Scheduler, Jacobs
2010 - 2018, Project Controller, Enerfab

Carlton and currently in the construction phase. The project includes adding 48 critical care patient rooms, multiple offices, nurse stations, staff, waiting and storage areas. He is responsible for the complete design of lighting, power, nurse call, security and fire alarm systems for all spaces.

Oak Hill High School Renovations, Oak Hill, WV
Mr. Haddox was the electrical designer for the Oak Hill High School Renovations, which included an electrical service upgrade, renovations to a few existing classrooms, renovations to the existing auditorium and the addition of a new Life Skills space. The electrical service upgrades included a new 1600A switchboard, back feeding the existing gear and re-routing the service entrance cables from the existing utility transformer. The auditorium saw upgrades to their house lighting, stage light fixtures and controls, a new sound booth with new sound equipment and integration of the existing video projection system. The new Life Skills space is designed to be utilized as a second gymnasium complete with scoreboards, backboard winches and independent sound system.

Putnam County Schools – Security Camera Upgrades, Putnam County, WV
Mr. Haddox assisted in the design of twenty-two Putnam County School facilities security camera upgrades. Design Development included camera placement and selection based on a criterion of Detection, Observation, Recognition or Identification. Each facilities security camera system was to be integrated in a way that with the appropriate credentials, an individual could obtain access to any facility camera system to observe or obtain recorded events from the onsite storage device.

Southern WV CTC Logan and Williamson Campus – Fire Alarm Upgrades
Mr. Haddox was responsible for the Fire Alarm design of two Southern WV CTC buildings. Building 'A' on the Logan campus is two stories with many classrooms and a large auditorium. The Williamson Campus Main Building is a five story building with multiple classrooms, labs and kitchen. To keep the buildings operable and safe during construction, the project was designed in two phases. Phase one is the installation of the new fire alarm system for each building that meets all local and state fire code requirements. Phase two is turning the building over to the new fire alarm system and removal of the existing fire alarm system.

Clay Center – Sculpture Garden, Charleston, WV
Mr. Haddox designed the site lighting and power requirements for this project. The lighting design included lighting controls, pathway bollard, water feature, and fabric structure lighting with provisions for lighting future sculpture locations. The lighting controls design gives the owner multiple options in dimming and color changing features during their events.

Project Experience with other firms
During Mr. Haddox's career he has been a project controller for multiple large scale electrical construction projects that include: a new 500,000 SF Paint Shop building at the Toyota Manufacturing Plant in Georgetown, KY, a Flue Gas Desulfurization project at the Northern Indiana Power Service Company's Michigan City Power Plant in Michigan City, Indiana and a Dry Fly Ash Conversion project at the AEP Mitchell Plant near Moundsville, WV. He was responsible for estimating project costs, developing and maintaining the project schedule, tracking commodity & field performances and forecasting. Ian worked closely with project management and plant engineers to interpret construction documents and coordinate work to field employees. In addition to these projects he was the lead estimator on several Arc Flash Mitigation projects at AEP plants all over the country and on many small TransCanada (formerly Columbia Pipeline Group) compressor station projects around the state of West Virginia.

Mike Flowers

Role
Plumbing Designer/Mechanical Technician

Mr. Flowers is responsible for the design of Plumbing systems, ensuring that the systems are designed to meet the needs of the owner and utilize the latest plumbing technologies to provide the most energy efficient design possible. Mr. Flowers has participated on several LEED registered projects; one of his key contributions to these projects is selecting plumbing fixtures and accessories in his design that require less utility consumption, so significant utility savings are passed on to the owner and the environment as well.

Mr. Flowers has had extensive experience in the field of construction where he frequently visits ZMM's current projects under construction and thoroughly checks the contractors work to ensure compliance with project specifications and construction documents.

Project Experience
Mr. Flowers has a broad range of experience and knowledge in Plumbing and HVAC systems design. His experience includes K-12 Schools, Higher Education Facilities, Military Facilities, Office Buildings, and Juvenile and Adult Correctional Facilities.

- Morgantown Readiness Center
- Logan-Mingo Readiness Center
- Huntington East Middle School
- Southern WV Community & Technical College
- Lincoln County High School
- Camp Dawson:
  Mountaineer Challenge Academy
  Buildings 202, 246, 301, and the Mail Facility

Jackson County Armed Forces Reserve Center (WVARNG): Mr. Flowers was responsible for the plumbing design on this project that utilized plumbing fixtures that reduced the total annual water usage by 30% as compared to using standard plumbing fixtures.

His design also incorporated 98%efficient water heating technology that dramatically reduced the total utility consumption for water heating.

Education
Associate in Mechanical Drafting and Design; 1990, Ben Franklin Career and Technical Center

Associate in Electronics Technology; 1987, Putnam Career and Technical Center

Associate of Science; 1988, West Virginia State University

Completed Dale Carnegie course in Effective Communications and Human Relations and Skills for Success

Employment History
2001 - Present, Mechanical and Electrical Technician, ZMM
1998 - 2001, Mechanical and Electrical Designer/Manager of CAD Services, ZDS, Inc.
1991 - 1998, Mechanical and Electrical Technician, ZMM

Civic Affiliations
- American Society of Plumbing Engineers (ASPE), Member Since 2009

Keith L. Gonzales

Role
Construction Administrator

Mr. Gonzales describes his role with ZMM as Construction Administrator as an exciting and challenging opportunity with new experiences every day. From varying jobsite conditions to the differing professionals, he works with daily, Mr. Gonzales approaches construction administration with over 40 years' experience in the construction industry and the desire to help provide the best outcomes possible for each project.

Mr. Gonzales prior to coming on board with ZMM oversaw the CAD/BIM coordination and design of major projects in the Columbus area. Facebook Data Center, OSU Wexner Cancer Hospital, OSU NDRT Student Housing Project to just name a few. Mr. Gonzales oversaw the 3D BIM modeling and coordination of these projects. He was responsible for ensuring that all trades were coordinated in model space therefore allowing trades to go to fabrication/installation once model was "Clash Free".

Mr. Gonzales project variety includes Educational (K-12 and University), Commercial, Military, Office, Justice (Courthouses, Justice Centers), Healthcare (Health Departments), Roof replacement projects.

Project Experience
CAMC Chiller Replacement, Charleston, WV
Hurricane High School Addition, Hurricane, WV
Charleston Coliseum & Convention Center, Charleston, WV
Boone County Roof Replacement Project, Boone, WV
Nicholas County Roof Replacement Project, Summersville, WV
Summers County High School HVAC, Summersville, WV
Summers County Bus Garage Renovations, Summersville, WV
WVSOM Greenspace Renovation Project, Lewisburg, WV
Calhoun County Pleasant Hill Elementary HVAC Equipment Replacement Project
Wood County Bell Tower Roof Addition, Parkersburg, WV
Christ Church United Methodist, Charleston, WV
Girl Scouts of Black Diamond Council, Charleston, WV
WVDNR Claudia Workman Fish and Wildlife Education Center, Alum Creek, WV

Education
Associate Degree Mechanical Engineering, Pittsburgh Technical Institute 1978

Employment History
2018 - Present, Construction Administrator, ZMM

References

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