



Purchasing Division  
 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: 507304

Doc Description: MCA Jobs Challenge Program Renovation

Proc Type: Central Purchase Order

Date Issued	Solicitation Closes	Solicitation No	Version
2018-10-18	2018-11-08 13:30:00	CEOI 0803 ADJ1900000010	1

**BID RECEIVING LOCATION**

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

**VENDOR**

Vendor Name, Address and Telephone Number:

ZMM, Inc. (dba ZMM Architects and Engineers)  
 222 Lee Street, West  
 Charleston, WV 25302  
 (304-342-0159)

RECEIVED

2018 NOV -7 AM 10: 38

WV PURCHASING  
 DIVISION

**FOR INFORMATION CONTACT THE BUYER**

Stephanie L Gale  
 (304) 558-8801  
 stephanie.l.gale@wv.gov

Signature X

FEIN #

55-0676608

DATE

11-7-2018

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



Purchasing Division  
 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: 507304

Doc Description: Addendum #1 MCA Jobs Challenge Program Renovation

Proc Type: Central Purchase Order

Date Issued	Solicitation Closes	Solicitation No	Version
2018-11-02	2018-11-08 13:30:00	CEOI 0603 ADJ1900000010	2

**BID RECEIVING LOCATION**


BID CLERK  
 DEPARTMENT OF ADMINISTRATION  
 PURCHASING DIVISION  
 2019 WASHINGTON ST E  
 CHARLESTON WV 25305  
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 (304) 558-8801  
 stephanie.l.gale@wv.gov

Signature X  FEIN # 55-0676608 DATE 11-7-2018

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.

ARK, PRINCIPAL  
 (Name, Title)  
 Adam R. Krason, AIA, LEED AP, Principal  
 (Printed Name and Title)  
 222 Lee Street, W., 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.

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

(Company)

ARK Adam R. Krason PRINCIPAL  
 (Authorized Signature) (Representative Name, Title)

Adam R. Krason, AIA, LEED AP, Principal

(Printed Name and Title of Authorized Representative)

11-7-2018

(Date)

304-342-0159 304-345-8144

(Phone Number) (Fax Number)

ADDENDUM ACKNOWLEDGEMENT FORM  
SOLICITATION NO.:

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.

Addendum Numbers Received:  
(Check the box next to each addendum received)

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> Addendum No. 1 | <input type="checkbox"/> Addendum No. 6  |
| <input type="checkbox"/> Addendum No. 2            | <input type="checkbox"/> Addendum No. 7  |
| <input type="checkbox"/> Addendum No. 3            | <input type="checkbox"/> Addendum No. 8  |
| <input type="checkbox"/> Addendum No. 4            | <input type="checkbox"/> Addendum No. 9  |
| <input type="checkbox"/> Addendum No. 5            | <input type="checkbox"/> Addendum No. 10 |

I understand that failure to confirm the receipt of addenda may be cause for rejection of this bid. I further understand 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, Inc. (dba ZMM Architects and Engineers)

Company  


Authorized Signature

11-7-2018  
Date

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

# West Virginia Ethics Commission Disclosure of Interested Parties to Contracts

(Required by W. Va. Code § 6D-1-2)

Name of Contracting Business Entity: ZMM, Inc. Address: 222 Lee Street, W.  
Charleston, WV 25302

Name of Authorized Agent: Adam R. Krason Address: Same as Above

Contract Number: CEOI 0603 ADJ1900000010 Contract Description: MCA Jobs Challenge Program Renovation

Governmental agency awarding contract: West Virginia Army National Guard

Check here if this is a Supplemental Disclosure

List the Names of Interested Parties to the contract which are known or reasonably anticipated by the contracting business entity for each category below (attach additional pages if necessary):

1. Subcontractors or other entities performing work or service under the Contract  
 Check here if none, otherwise list entity/individual names below.

2. Any person or entity who owns 25% or more of contracting entity (not applicable to publicly traded entities)  
 Check here if none, otherwise list entity/individual names below.  
ZMM, Inc., Robert Doeffinger  
ZMM, Inc., David E. Ferguson  
ZMM, Inc., Adam R. Krason

3. Any person or entity that facilitated, or negotiated the terms of, the applicable contract (excluding legal services related to the negotiation or drafting of the applicable contract)  
 Check here if none, otherwise list entity/individual names below.

Signature:  Date Signed: 11-7-2018

### Notary Verification

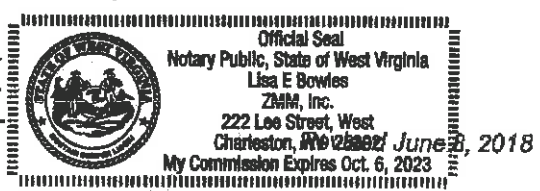
State of West Virginia, County of Kanawha:

I, Adam R. Krason, the authorized agent of the contracting business entity listed above, being duly sworn, acknowledge that the Disclosure herein is being made under oath and under the penalty of perjury.

Taken, sworn to and subscribed before me this 7th day of November, 2018.

  
Notary Public's Signature

**To be completed by State Agency:**  
Date Received by State Agency: \_\_\_\_\_  
Date submitted to Ethics Commission: \_\_\_\_\_  
Governmental agency submitting Disclosure: \_\_\_\_\_



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 exceeds five percent of the total contract amount.

**AFFIRMATION:** By signing this form, the vendor's authorized signer affirms and acknowledges under penalty of law for false swearing (W. Va. Code §61-5-3) that: (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: *ALR* Date: 11-7-2018

State of West Virginia

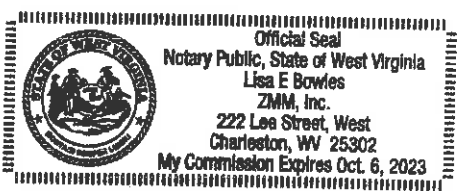
County of Kanawha, to-wit:

Taken, subscribed, and sworn to before me this 7<sup>th</sup> day of November, 2018.

My Commission expires 10-6, 2023.

**AFFIX SEAL HERE**

NOTARY PUBLIC *Lisa E. Bowles*





November 6, 2018

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

**Subject: Mountaineer Challenge Academy – Job Challenge Facility (CEOI ADJ1900000010)**

Dear Ms. Gale:

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 renovation of the Vance Building at Camp Dawson into the Job Challenge Facility for the Mountaineer Challenge Academy. ZMM understands the important role that the Challenge Academy plays in helping West Virginia's youth, and commits to undertaking the effort by providing every resource necessary to support the program and to ensure the success of the project.

Established in 1959, ZMM is a West Virginia based, full service A/E firm, and is noted for design excellence and client focus. As a full-service design firm with a longstanding relationship serving the West Virginia Army National Guard (WVARNG), ZMM has the right combination of technical expertise, West Virginia renovation experience, educational design experience, and Camp Dawson design experience, required to help successfully deliver the Jobs Challenge Facility project. 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.

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. This experience includes a variety of renovation projects for the WVARNG including the Construction and Facilities Management Office (CFMO), the Marshall County Readiness Center, the Camp Dawson Building 202 Renovation. 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, the State Capitol, and the Greenbrier.

ZMM is also a respected and valued resource in the educational planning and design community in West Virginia, and our commitment to educational design quality has been recognized with statewide and national design and planning awards. Recent award winning projects include Huntington East Middle School, the Explorer Academy, and Southside Elementary/Huntington Middle School in Cabell County, Edgewood Elementary School and St. Albans High School in Kanawha County, Kenna Elementary School in Jackson County, Gauley River Elementary School in Nicholas County, Hacker Valley PK-8 in Webster County, and Lincoln County High School. ***in fact, ZMM's commitment to design quality has been recognized by the American Institute of Architects West Virginia Chapter with sixteen design awards in the last decade – an achievement that is unrivaled in West Virginia.***

Thank you for taking the time to review the attached expression of interest that includes information about our proposed approach for the MCA – Job Challenge Facility project, as well as ZMM's

qualifications, and relevant project experience. Additionally, please visit our website at [www.zmm.com](http://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 meeting with you to discuss the project in greater detail.

Respectfully submitted,  
**ZMM Architects and Engineers**



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



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# Mountaineer Challenge Academy – Job Challenge Facility Project Approach, Management Plan, Quality Control Plan, Cost Control Plan

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## Background

Based upon ZMM's understanding of the information contained in the request for expression of interest, the project involves a substantial renovation/adaptive reuse of the Vance Building at Camp Dawson. "The Vance Building is a pre-fabricated metal building, which has two large work bays, office area, conference area, restrooms, and storage areas. The building currently serves as the Fire Department building for Camp Dawson." The intent is for the building to "be redesigned in all aspects to provide classroom areas, offices, sufficient restrooms, shop areas and storage for the Mountaineer Challenge Academy's Job Challenge Program."



Mountaineer Challenge Academy is a unique twenty-two week voluntary residential program operated by the West Virginia National Guard. "Its mission is a simple one — to train and mentor selected at risk students using eight core components in a quasi- military environment. The goal is to help these unique and courageous young men and women between the ages of 16 and 18 become contributing members of society. For 22 weeks, they learn those eight core components, which are life-coping skills, job skills, health and hygiene, citizenship, education excellence, service to the community, leadership and fellowship and, of course, physical training.

The success rate is nothing short of amazing. The Challenge Academy's "whole person" concept has helped graduate 3,279 cadets from all 55 counties since opening in 1993. Those who proudly run the program boast an average of 272 graduates each year. And as of 2013, those who qualify can actually attain high school diplomas from the counties they hail came from. Even more remarkable, beyond graduation, cadets participate in a one-year follow-up program led by volunteer mentors from their home communities. These role models assist the cadets with their Post-Residential Action Plan, helping them achieve even greater success. In fact, mentor reports indicate some rather impressive statistics. For example, 41 percent enter the workforce, 17 percent go into the military and 12 percent go to college."

ZMM Architects and Engineers is uniquely qualified for this project because of our experience working with both the West Virginia Army National Guard (at Camp Dawson), and because of our experience designing education facilities in West Virginia. Since our founding in 1959, ZMM has provided design services on more than 250 educational facilities throughout the state. This experience has led our full-service architectural and engineering team to develop a thorough understanding of the educational programming, planning, and design requirements unique to West Virginia.

The technical nature of the project also demonstrates the need for a full service design team with experience working on West Virginia Army National Guard facilities. ZMM has all of 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 Kenova Secure Area, Camp Dawson Building 202 Improvements, the Marshall County Readiness Center, and the CFMO Expansion.

### **Mountaineer Challenge Academy – Job Challenge Facility: 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 to identify deficiencies and opportunities. The purpose of the investigation is to determine the condition of the major building systems, and to validate the proposed project scope and budget. ZMM will commence the investigation by developing as-built plans of The Vance Building at Camp Dawson. These plans will be created by manually verifying the existing construction and utilizing any existing plans that are available. All major mechanical and electrical equipment will be identified on the plans. Once these plans are complete, ZMM will conduct a facility evaluation with a team of architects and engineers, in conjunction with WVARNG personnel.



The examination process will begin with a review of all existing plans of the site and building, and, as noted above, the production of as-built plans. Once the base plans are completed, existing conditions are documented with photographs that are keyed to the plans. The team will focus the investigation on the following systems:

- Site Conditions (Including Utilities, Parking Areas, and Sidewalks)
- Life Safety and Egress (Coordinated with the State Fire Marshal)
- Accessibility
- Building Envelope (Exterior Walls, Roofs, Doors and Windows)
- Interior Conditions and Finishes
- Plumbing Systems
- Electrical Service and Distribution, Emergency Power
- Lighting
- Mechanical Systems
- Data/IT Infrastructure
- Security Improvements

Simultaneously with the investigative effort, ZMM will be working with the MCA team members to commence the visioning, programming, and planning effort for the improvements. Conceptual plans and renderings will be developed to document the scope of the proposed improvements.

At the completion of this first phase, all required improvements will be identified, and any scope/budget issues will be resolved. The proposed improvements will also be reviewed with the State Fire Marshal as upgrades to existing facilities often require simultaneous life safety improvements. The completion of this first phase will be used as a portion of the 35% submission.

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% (as noted above), and again at 65%, 95%, and 100%. 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 – Job Challenge Facility: 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 at Camp Dawson. 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 all of the recent work for the WVARNG, including the Kenova Secure Area Renovation, the Camp Dawson Building 202 Renovation, the JITEC, the Camp Dawson ACP, the Marshall County Readiness Center, the Jackson County AFRC, the Morgantown Readiness Center, the CFMO Expansion, the Tackett Family Readiness Center, and the Parkersburg Readiness Center. Other key team members will include:

Carly Chapman  
 Scot Casdorff, PE  
 Mike White, PE  
 Bob Doeffinger PE  
 John Pruett, PE  
 Mike Flowers  
 Mark Epling, AIA  
 FaLena Perry  
 Lee Turley

Interior Designer  
 Electrical Engineer  
 Structural Engineer  
 Engineering Principal/Mechanical Engineer  
 Mechanical Engineer  
 Plumbing Designer  
 Specifications Writer  
 Construction Administrator  
 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. Additionally, the ZMM team has participated in the design of some of the most innovative educational facilities across West Virginia including Edgewood Elementary School in Kanawha County and the Explorer Academy in Cabell County/



### **ZMM Quality Control Plan**

Quality control during the design phase begins with the selection of team members with experience working on projects that are similar to the current effort. 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 a number of projects, including:

- Camp Dawson Building 202 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 Job Challenge Facility. ZMM understands the importance of the Mountaineer ChalleNGe Academy program, and will provide every resource necessary to support the program, and ensure the success of the project.



**LOCATION:**  
222 Lee Street, West  
Charleston, WV

**CONTACT:**  
Phone 304.342.0159  
Fax 304.345.8144  
[www.zmm.com](http://www.zmm.com)



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
- Landscape Architecture
- Civil Engineering
- Structural Engineering
- Engineering (MEP)
- Energy Consumption Analysis
- Net Zero Design

**Post Design**

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





# Award Winning Design



## **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



**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

# Award Winning Design



## **2014**

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

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

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

## **2012**

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

## **2011**

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

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

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



# Joint Interagency Training & Education Center

WVARNG



**LOCATION:**  
Kingwood, WV

**SIZE:**  
285,000 SF

**COMPLETION:**  
2013

**COST:**  
\$78.4M

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

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



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

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

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



# Joint Interagency Training & Education Center



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

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

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

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

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

# Morgantown Readiness Center

WVARNG



**LOCATION:**  
Morgantown, WV

**SIZE:**  
54,000 SF

**COMPLETION:**  
2013

**COST:**  
\$18.5M

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



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

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

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

# Morgantown Readiness Center

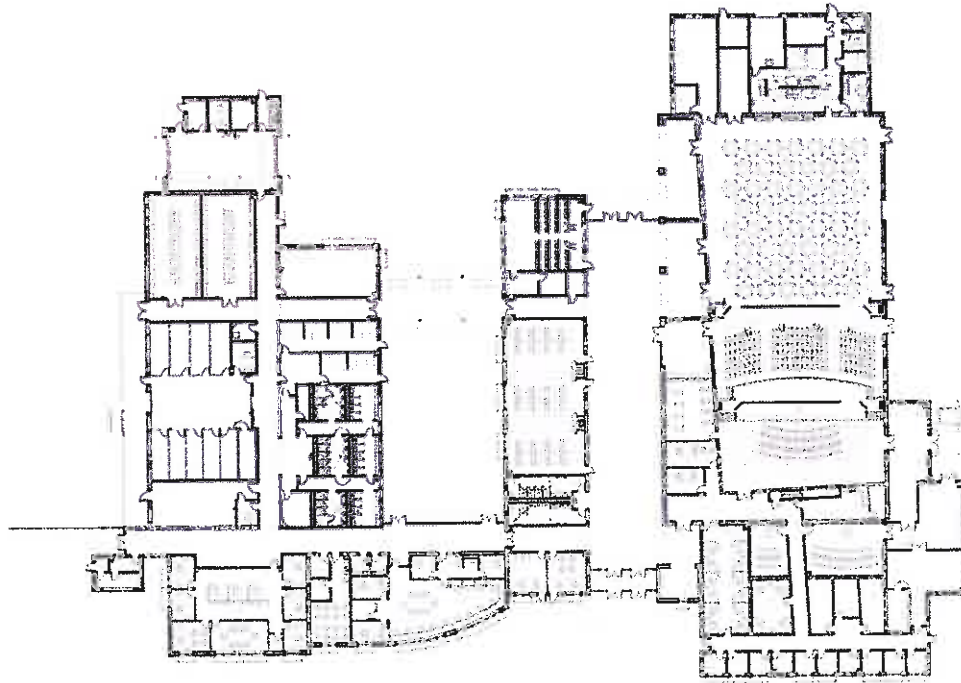
WVARNG



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

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

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



# Logan-Mingo Readiness Center

WVARNG



LOCATION:  
Holden, WV

SIZE:  
54,000 SF

COMPLETION:  
2015

COST:  
\$12M

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

AWARD:  
2017 AIA Merit Award,  
West Virginia Chapter,  
*Achievement in Architecture*  
in Sustainable Design



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 150<sup>th</sup> Armored Reconnaissance Squadron and the 156<sup>th</sup> Military Police (LNO) Detachment. Clear separation of "public" and "private" areas within the facility, unique office configurations related to training requirements, and the addition of State Funded additional spaces.

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



# Jackson County Armed Forces Reserve Center

WVARNG



**LOCATION:**  
Millwood, WV

**SIZE:**  
75,000 SF

**COST:**  
\$20M

**COMPLETION:**  
Fall 2011

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



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

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

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





# Glen Jean Armed Forces Reserve Center

WVARNG



**LOCATION:**  
Glen Jean, WV

**SIZE:**  
110,000 SF

**COST:**  
\$17M

**COMPLETION:**  
2004

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



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

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



# Robert C. Byrd - Regional Training Institute

WVARNG



**LOCATION:**  
Kingwood, WV

**SIZE:**  
148,000 SF

**COMPLETION:**  
2002

**COST:**  
\$21M

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



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

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

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



# Construction & Facilities Management Office

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.



# Tackett Family Readiness Center

WVARNG



**LOCATION:**  
Charleston, WV

**SIZE:**  
7,400 SF

**COMPLETION:**  
February 2011

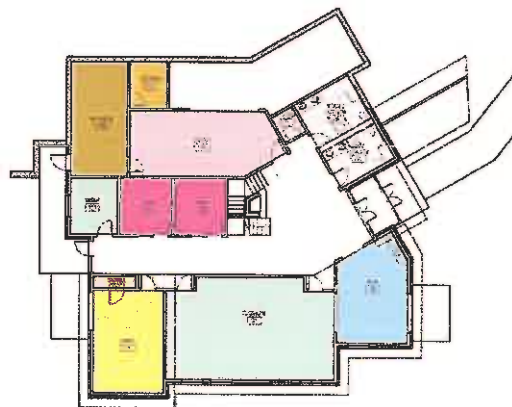
**COST:**  
\$1.57M

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

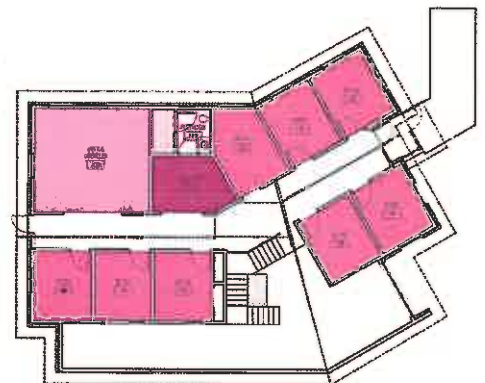


The Family Support Center is a two - story brick building with a sloped roof stepped into the wooded hillside adjacent to the Army National Guard facilities in Charleston. Due to the existing slopes, several analyses to determine the optimal finished floor elevations of the building. The building was set into the hillside to allow for on-grade access to both entrances. The building is designed to provide for a multitude of military family assistance, guidance, education, training, and mentoring programs.

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



Lower Level



Upper Level

# Kingwood Armed Forces Reserve Center

WVARNG



**LOCATION:**  
Camp Dawson, WV

**SIZE:**  
56,200 SF

**COMPLETION:**  
2000

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



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

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



# Southern WV Community & Technical College

*Applied Technology Building and Campus Planning*



**LOCATION:**  
Williamson, WV

**SIZE:**  
22,000 SF

**COMPLETION:**  
2013

**COST:**  
\$5M

**CONTACT:**  
Rita Roberson, Director of  
Campus Operations  
1601 Armory Drive  
Williamson, WV 25661  
304.236.7648  
[ritar@southern.wvnet.edu](mailto:ritar@southern.wvnet.edu)

**AWARDS:**  
2014 AIA Merit Award  
West Virginia Chapter  
*Achievement in Architecture*

American School &  
University: *Outstanding  
Building Design*



The new Applied Technology Center is located on Southern WV CTC's Williamson Campus. The 22,000 SF college houses a virtual welding shop, machine shop, mechatronics shop, a mining support program, administrative space and student support spaces, as well as several allied health programs. The space is designed to maximize both flexibility and adaptability, and will reflect a modern, "high-tech" aesthetic while also blending into the overall campus.

The large area for lab spaces is enhanced by black brick and surrounded by classrooms and support spaces highlighted by a curved glass wall with metal panel accents. The entrance is crafted with smooth metal panels and adjacent to textured patterned black brick construction to resemble coal.

A wood trellis area sits on round concrete columns shading the glass walls of the Administration and acts as an area for student gatherings. The strong contrast between the metal/glass and the wood trellis works to strengthen the outside space.

The facility is the first step in the progression of a planned campus expansion that will ultimately include expanding the campus into the adjacent property. The school is currently working on a new campus master plan, with a focus on creating green space and improving pedestrian and vehicular circulation.



# Bridgemont Community & Technical College

## Davis Hall Renovation



**LOCATION:**  
Montgomery, WV

**SIZE:**  
77,215 SF

**COMPLETION:**  
Summer 2012

**COST:**  
\$4M

**CONTACT:**  
Dr. Jo Harris, President  
(Retired)  
619 2nd Avenue  
Montgomery, WV 25136  
304.741.4116 (cell)



ZMM was selected by Bridgemont Community and Technical College and the West Virginia Community and Technical College System to provide professional architectural and engineering design services for the Renovation of Davis Hall in Montgomery. Davis Hall is a 77,215 SF classroom and laboratory facility that was constructed in 1970 for WVU-Tech. The exterior of the facility consists of architectural pre-cast concrete panels and a curtain wall system. The interior includes an open two story atrium, a large auditorium, and five levels of office and classroom space that is constructed of demountable partitions.

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

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

# Erma Byrd Center

Public Higher Education Center



**LOCATION:**  
Beaver, WV

**SIZE:**  
33,000 SF

**COMPLETION:**  
August 2007

**COST:**  
\$7.5M

**CONTACT:**  
Rich Donovan  
Executive Director  
The Higher Education  
Foundation  
200 Main Street  
Beaver, WV 25801  
304.929.2010

**AWARDS:**  
2008 AIA Honor Award  
West Virginia Chapter  
*Excellence in Architecture*

American School &  
University: *Outstanding  
Building Design*



The Erma Byrd Center for Public Higher Education is the first building of its kind in the state. The 33,000 square foot center provides students the convenience of taking a variety of college classes offered by six different college and universities in a single location.

The new facility consists of standard classrooms, distance learning classrooms, a science lab, computer classrooms, a lecture hall, a multi-media library along with administrative office space for each college and university. Through technology, the building itself becomes an educational tool. Students are able to monitor the HVAC system and it's controls through web-based software thereby learning how the system works and how the climate and building design affect performance.

A wind turbine and solar panels on site assist in reducing the overall utility costs and allow students to see first-hand the benefits of alternative energy sources. This Higher Education facility sets a new standard for the learning environment and energy efficiency. The building is designed to maximize use of natural light and has sensors throughout that control the artificial light level by measuring the amount of light present in the space.

The high-tech facility is the first building on what will become a campus for public higher education. It's placement at the front of the site allows the building to serve as a beacon of what is to come.





# Smith Hall - Marshall University

## *HVAC & Interior Improvements*



**LOCATION:**  
Huntington, WV

**SIZE:**  
22,000 SF

**COMPLETION:**  
2017

**COST:**  
\$921,568.33

**OWNER:**  
Randy Vaughn  
Project Manager  
Marshall University  
1625 3<sup>rd</sup> Avenue  
Huntington, WV 25755  
304.696.6415



Smith Hall is located on 3<sup>rd</sup> Avenue on Marshall University's main campus in downtown Huntington, WV. The 22,000 SF project was a renovation to upgrade the architectural interior finishes and acoustical quality of the music practice and performance areas.

Originally constructed in the 1960s, Smith Music Hall was a product of institutionalized design that hit the right notes in its time, but failed to attain the environment necessary for the advances in musical instruction and performance. ZMM worked closely with Marshall University professors to determine the correct acoustics to meet the accreditation needs for the college. Being an extension of the Fine Arts Department, the Owner also felt that it was necessary to address the overall aesthetics for a creative mind and inspire the students. Taking inspiration from the Thundering Herd, the building was transformed with a mature palette and pops of green selected by the renovation committee.

Interior improvements included replacement of ceilings in all corridors and areas that were affected by the HVAC replacement. In addition to new ceilings, existing ceilings in the practice rooms received a sound blanket barrier and acoustical coating to improve the performance of the space when being used for individual practice sessions. Paint, carpet and acoustical wall treatments were also installed in practice rooms, classrooms, and offices.

Mechanical system improvements were also implemented at Smith Hall to humidify the 1st, 2nd and 3rd floors of offices and music practice rooms, and to correct other issues being experienced by the aging HVAC system. The existing HVAC system consisted of a dual duct system with pneumatic control for the distribution terminal units, and the existing air handling unit had been retrofitted a few years prior with a fan wall and 500 kw electric hot deck. The system was a high energy user and did not provide proper conditioning.

ZMM converted the system to VAV by removing the hot deck ductwork and terminal units and installing VAV terminal units with SCR electric reheat. Removing the hot deck electric heater with a much smaller electric coil in the reheat position, provided enough reserve electrical capacity to power the VAV terminal reheat.

# Smith Hall - Marshall University

## *HVAC & Interior Improvements*

In addition, ZMM retained the fan wall and existing chilled water coil and installed all new DDC controls. The dehumidification was provided by a gas fired humidifier to maintain stable humidity through the heating season. The building's mechanical system is operating satisfactorily in its first heating season.

Smith Music Hall's combination of HVAC, acoustical, and interior improvements highlights ZMM Architects and Engineers ability to provide multi-discipline design services on complex renovation projects



# St. Albans High School

Kanawha County Schools



**LOCATION:**  
St. Albans, WV

**SIZE:**  
216,500 SF

**COMPLETION:**  
2003

**COST:**  
\$24M

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

**AWARDS:**  
Impact on Learning Award  
*Effective Transformation*

Education Design Showcase  
*Outstanding Building Design*

American School & University  
*Outstanding Building Design*



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

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

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



# St. Albans High School



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

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

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



# Lincoln County High School

Lincoln County Schools



**LOCATION:**  
Hamlin, WV

**SIZE:**  
217,000 SF

**COMPLETION:**  
August 2006

**COST:**  
\$32M

**OWNER:**  
Jeff Midkiff  
Superintendent  
10 Marland Avenue  
Hamlin, WV 25523  
304.824.3033

**AWARDS:**  
2007 AIA Honor Award  
West Virginia Chapter  
*Excellence in Architecture*

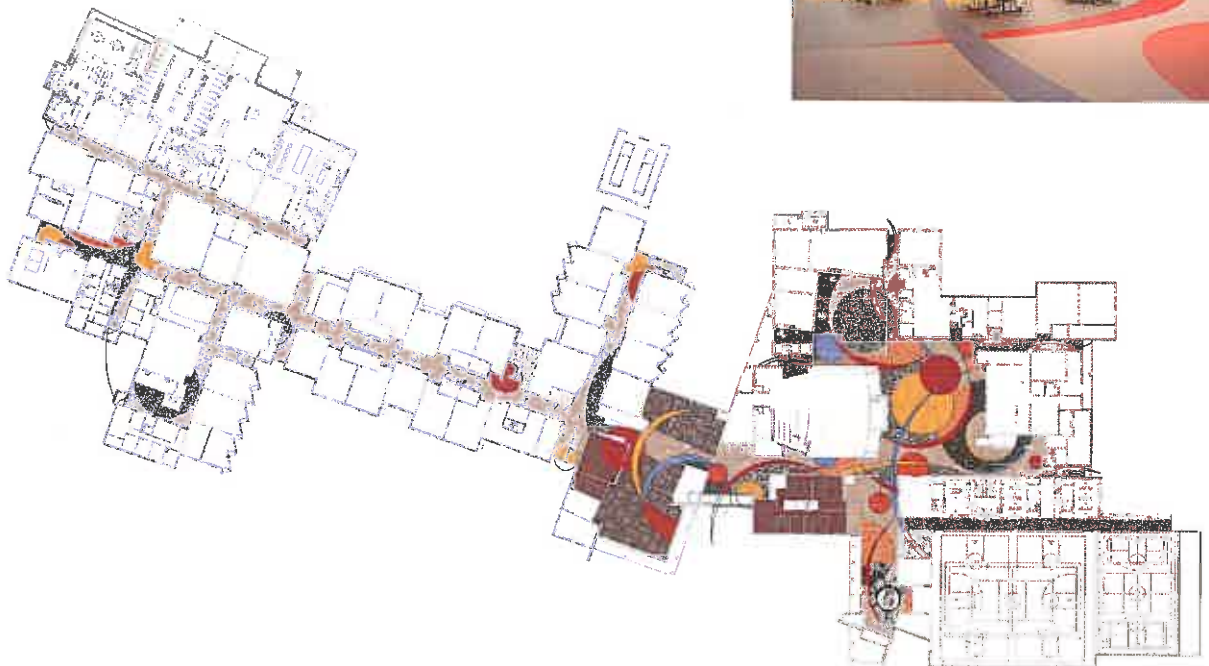
Education Design Showcase  
*Product of Distinction*

American School & University  
*Outstanding Building Design*



Lincoln County High School combines four existing high schools into one. The facility includes 45,000 SF of both traditional and non traditional vocational space. Students have the opportunity to access vocational classes without leaving the building. Along with the traditional classrooms, some additional programs were added as well. The Health Occupations Lab will operate in conjunction with the Doctor's Office Clinic on site. Students enrolled in that program have the opportunity for "job shadowing." The Clinic operates six days a week, twelve months a year.

The high school is the focal point of the community and a community college wing occupied by Southern West Virginia Community College. The college offers classes during the day and evening. High School Students will have the opportunity to take college classes during the day.



# Lincoln County High School

*Lincoln County Schools*



The community colleges Distance Learning facility and the Science and Computer Lab will be accessible to the high school students for daytime classes.

The building provides a unique learning opportunity for students. Day-lighting and automatic lighting controls provide state of the art technology for students to see how sustainable design, energy conservation, and technology work together.

This facility is one of the first educational buildings in the state of West Virginia to include sustainable building design features. A fully integrated technology distribution system is provided throughout the building. Students and faculty have access to these computers throughout the facility.



# Huntington East Middle School

Cabell County Schools



LOCATION:  
Huntington, WV

SIZE:  
100,500 SF

COMPLETION:  
2013

COST:  
\$23M

CONTACT:  
Mr. William Smith  
Superintendent  
Cabell County Schools  
2850 5th Avenue  
Huntington, WV 25702  
304.824.3033

AWARDS:  
2014 AIA Merit Award  
West Virginia Chapter  
*Achievement in Architecture*



This state of the art facility combines the existing populations of Enslow Middle School and Beverly Hills Middle School. Located in the heart of both communities the new facility will house approximately 770 students. It's contemporary design is home to a middle school curriculum layout familiar throughout Cabell County Schools. The brick façade is accented with metal panels and highlighted with large amounts of glass that naturally light the classrooms. A curved corridor divides the building while slowly widening and developing into the Art Room. The Art Room showcases a large window introducing natural light into the Art Room and the corridor. The curved façade along the corridor is emphasized with copper finished metal panels.

Cabell County Schools is currently pursuing LEED Gold Certification. The building and curriculum will boast of 6<sup>th</sup>, 7<sup>th</sup>, and 8<sup>th</sup> grade teams that will compete against each other in reducing energy consumption and will be able to track through technology energy usage throughout the year. Through on-line learning and technology systems throughout the facility students will be able to also work with and compete with facilities throughout the world.

The building itself was designed as a teaching tool. A pulper system is used not only to consume kitchen waste but also all paper waste throughout the school. The students are able to take this product and provide compost for the school's vegetable gardens, which also provide additional produce for the "farm-to-table" program at the school. The facility includes a new Gymnasium, Cafeteria with a Stage, Art, Music, Band, Orchestra and Science facilities.



# Southside Elementary & Huntington Middle School

Cabell County Schools



**LOCATION:**  
Huntington, WV

**SIZE:**  
158,194 SF

**COMPLETION:**  
2010

**COST:**  
\$27M

**CONTACT:**  
Ryan Saxe  
Superintendent  
2850 5th Avenue  
Huntington, WV 25702  
304.824.3033

**AWARDS:**  
2011 AIA Honor Award  
West Virginia Chapter  
*Excellence in Architecture  
Preservation*



The two schools that previously occupied the site of the New Southside Elementary School and Huntington Middle School were known as Cammack Elementary School and Cammack Middle School. The new facility houses a combined 1,014 Elementary and Middle School students. When the Cabell County Board of Education proposed a \$61M bond issue in 2006, the Huntington community expressed the importance of saving this neighborhood landmark.

The new facilities were designed to blend with the architectural character of the existing facility. More than 70% of the existing building was demolished and the portion remaining was completely renovated. Two new stair towers provide a vertical architectural element that separates the existing structure from the new construction. The result is a cohesive design that blends the unique elements of the former Cammack School into a modern educational complex that exceeds the requirements of 21<sup>st</sup> century learning.





## Southside Elementary & Huntington Middle School



Although the expanded facility houses both an elementary and a middle school, each have their own distinct entrance and administrative complex and the students remain physically separated on opposite sides of the facility. The new schools only share a kitchen, which has been located to serve separate dining facilities.

With the community's support of the bond, ZMM has designed a facility that maintains the historic character of the façade and auditorium, while replacing the remainder of the facility. The community has maintained a landmark, while developing new state of the art elementary and middle schools.

# Explorer Academy

Cabell County Schools



LOCATION:  
Huntington, WV

SIZE:  
60,000 SF

COMPLETION:  
2015

COST:  
\$15M

CONTACT:  
Ryan Saxe  
Superintendent  
2850 5th Avenue  
Huntington, WV 25702  
304.824.3033

AWARD:  
2017 AIA Merit Award  
West Virginia Chapter  
*Achievement in  
Architecture*



## A New Learning Model – Cabell County’s New Expeditionary School

Students set foot this past fall into a new Expeditionary Learning Incubator School, which is the first of its kind in West Virginia.

Cabell County School officials are excited about a new school they hope will set an example for schools around the state. Cabell County School Board officials hope it is the next step in education. It is a consolidation of Peyton Elementary and Geneva Kent Elementary in the east end of Huntington. The schools were combined to form the incubator school, which is housed in the former Beverly Hills Middle School facility that will be remodeled to fit the mold of the Expeditionary Learning model.

Cabell County School officials describe the school as an incubator school because of the experimental learning environment. They hope what they learn from their experiment leads to other school districts around the state doing their own experiments and developing expeditionary learning environments of their own. Known as EL for short, students will learn about completing projects that will stretch across different subject areas and can sometimes take the entire school year.

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 will be going out and doing field work, which is much different than a field trip. In Expeditionary Learning, students learn by conducting learning expeditions rather than by sitting in a classroom being taught one subject at a time.



# Explorer Academy

*Cabell County Schools*



The school system has partnered with Marshall University to offer teachers in Cabell County and throughout the state training on the new curriculum.

In addition to creating separate bus and parent loading and unloading areas with additional parking, renovations include an enlarged Dining and Kitchen space to accommodate the student population. The facility will have a new HVAC system and new lighting to replace the original outdated systems and bring the building up to current codes and standards. The Media Center has been renovated to accommodate current technology needs and it overlooks a rooftop outdoor classroom space for all students. Studio spaces are scattered throughout the building for teachers to take students for collaboration on special projects. Student display areas are distributed throughout the building on every space available. This is evident from the front door as you begin your walk through the building. Student art walls are also located throughout the building as well as outside the building so students can create their own atmosphere from day to day. Totally renovated Art and Science Classrooms anchor the second floor space. Old locker rooms were removed and building circulation was improved for students to move freely throughout the building. A new music room was created close to the refinished Gymnasium and performance platform.

Site amenities include a nature trail, new steps to lower portions of the site not accessible before, a walking deck that overlooks the vegetation and puts students into the canopies of certain trees to view and study plant life at a higher level. An amphitheatre, green house, gazebo, pizza oven, artificial turf and the required play areas complete the learning centers outside of the building.

# Edgewood Elementary School

Kanawha County Schools



LOCATION:  
Charleston, WV

SIZE:  
56,000 SF

COMPLETION:  
2014

COST:  
\$22M

CONTACT:  
Dr. Ron Duerring,  
Superintendent  
Kanawha County Schools  
200 Elizabeth Street  
Charleston, WV 25311  
304.378.7732

AWARD:  
2015 AIA Honor Award  
West Virginia Chapter  
*Excellence in Sustainable  
Design*



The second West Side Elementary School, located off of Edgewood Drive, has been designated as a “School of the Future.” This designation is not entirely accurate. The reality is that the new school is challenging the traditional model of curriculum delivery – which is typically 25 students in a classroom, with a teacher delivering lessons to the students. The new school provides space for hands-on exploration, technology, small group projects, and still retains space for direct teacher led instruction.

Educational professionals and designers have previously made the observation that while many other building types have changed over the last century, classrooms have remained essentially unchanged. If the focus of curriculum delivery changes to provide students with better access to technology and a greater emphasis on hands-on learning, how will the classroom be modified to support the teachers? In the case of the new Edgewood Elementary School, we started by designing the building from the inside-out.

One of the challenges of programming the new facility was that it was difficult to establish the size and budget for the educational spaces, which the project team understood would be unique. To capture this information, the team elected to begin the design process by exploring a new layout for the instructional areas. Kanawha County Schools developed a unique model for these instructional areas. The concept for each central instructional area was to create a space that mimics a museum. As when they enter a museum, students will be engaged in the learning materials throughout the environment as they work on projects. Each instructional area will also have direct access to exterior instructional and recreational spaces.



# Edgewood Elementary School

*Kanawha County Schools*



Each instructional area will house 60-75 students, and will contain space for small group projects, a distributed library/media center, space for art and science projects, and a shared performance area. Four to five teachers will work collaboratively as both instructors and facilitators. The area will also provide three classrooms for direct teacher-led instruction for groups of 16 students in both math and reading.

As these spaces were developed, it became clear that regular, rectilinear spaces did not create the variety of environments, the smaller child sized spaces, or the opportunity for visual separation of tasks. To permit the spaces to be reconfigured based on the needs of the students furniture in the instructional spaces will provide flexibility and adaptability to the space. Overhead and sliding doors as well as moveable partitions are also being included to allow the space to be fully open, or subdivided based on the need. Many of the doors and furniture surface will be writable, functioning as whiteboard space.

In addition to re-examining the traditional classroom layout, the use of technology in the educational environment was considered. In the past the lack of adequate technology hindered efforts to develop student centered instructional environments. As anyone who has seen a young child utilize an Apple iPad, it is clear that the technological barrier has been eliminated. At the new school each student will have access to a personal device, similar to an Apple iPad. The entire school will utilize wireless technology, and the personal device will be used to advise the students on their daily schedule, participate in online learning opportunities, and will also provide the instructors with immediate feedback on progress so that they can adjust their efforts to meet the constantly changing needs of the students.

The new school is also being designed to function as an educational tool. Students will learn about daylighting, captured rainwater, efficient building envelopes (insulation), domestic solar hot water, efficient HVAC systems, and recycling. This information will be relayed to the students through the use of age appropriate signage, as well as a dashboard system that will help monitor the building's energy use. While the type of educational environment being planned for the second West Side Elementary School is unique to West Virginia, it incorporates several features that have been successfully implemented in other areas. By re-evaluating the traditional classroom and methods of curriculum delivery, KCS is looking to develop a more personalized educational experience for the students.

# 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 is serving 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

## **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

collaboration with tvsdesign and BBL Carlton. Mr. Krason is 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 is scheduled for completion in 2018.

**State Office Building #5, 10<sup>th</sup> 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 10<sup>th</sup> 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 1-201<sup>st</sup> Field Artillery. A significant portion of the Morgantown Readiness Center supports the 249<sup>th</sup> 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 21<sup>st</sup> 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 AIA Honor Award State Office Building #5, 10<sup>th</sup> Floor Renovation, Charleston, WV  
2009 AIA Merit Award WVARNG Construction and Facilities Management Office, Charleston, WV

# Robert Doeffinger, PE



**Role**  
Engineering Principal

**Professional Registrations**  
Professional Engineer (WV, VA, PA, OH, TN, KY, NY, NH, ME, NC, SC, FL, 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 is the mechanical project 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 is scheduled for completion in 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, Bridgmont Community and Technical College
- City of Pt. Pleasant, WV – 2<sup>nd</sup> Ward Councilman for 20 years



**State Office Buildings #5, 10<sup>th</sup> 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 10<sup>th</sup> 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.

# Nathan Spencer, AIA



## **Role**

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**

### **Charleston Civic Center, Charleston, WV**

Mr. Spencer is serving 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 is scheduled for completion in 2018.

### **Edgewood Elementary School, Charleston, WV**

Mr. Spencer participated on the design team that developed the new Kanawha County Elementary School on Charleston's West Side. The school was designed as a 21<sup>st</sup> 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 integrates sustainable design principles to serve as a teaching tool for the students. A dental and health clinic is also on site for all enrolled students in the Kanawha County School District.

## **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

**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 150<sup>th</sup> Armored Reconnaissance Squadron and the 156<sup>th</sup> 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.

**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 workbays, 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.

**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** Nate 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.

**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.



**Role**  
Interior Designer

Mrs. Chapman serves as the Interior Designer at ZMM. Mrs. Chapman takes pride in her work's originality and always strives to help the client's vision and intent come alive in the design process. Her experience at ZMM includes Education, Municipal, Residential, Healthcare, and Hospitality projects. In her past position she focused on both Corporate and Healthcare design. Mrs. Chapman's responsibilities include conducting design proposals and presentations, as well as producing design documents and specifications relating to all aspects of interior design.

### Project Experience

Mrs. Chapman has served as the interior designer for a variety of projects. Projects range from renovations to new construction and is comprised of every industry. Her responsibilities include design concept, presentation, documentation, specification writing, and architectural drafting.

#### **Fayette County Schools, PK-2 & New Collins Middle, Oak Hill, WV**

These schools were designed as separate schools sharing the same site and are connected by a mechanical wing. This building called for a challenging design concept. The schools each had their own unique design theme, but were delicately connected in small aspects of color or architectural techniques, allowing the interiors to flow seamlessly.

#### **Charleston Civic Center, Charleston, WV**

Mrs. Chapman assisted in the construction administration and interiors 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. Construction was complete in October 2018.

#### **ARH Chemotherapy, Beckley, WV**

This project was a renovation of a hospital wing to be redesigned for optimal health and wellness for patients undergoing chemotherapy treatment. Both aesthetics and general sanitary design requirements were crucial to making this project successful.

#### **Valley Park Community Center, Hurricane, WV**

The new community center replaced an existing structure that was recently demolished earlier this year. The new building houses a commercial kitchen, administration wing, ballroom,

### **Education**

Bachelor of Interior Design, University of Charleston, 2012

### **Employment History**

2016 - Present, Interior Designer, ZMM

2012 - 2016, Project Manager/Interior Designer, Contemporary Galleries, Inc.

2003 - Present, Architect, Project Manager, ZMM

2010 - 2012, Interior Design Intern, ZMM

and a locker room complex with administration quarters for the attached Wave Pool.

**Charleston Edge, Charleston, WV**

The Charleston Edge renovation focused on bringing life to an old existing structure in the heart of downtown Charleston. The concept of the design was to create contemporary living quarters for the young urbanites of the city, while also providing a communitive atmosphere by including a rooftop gathering space for locals to enjoy.

**CAMC Post Op, Teays Valley, WV**

This project was a renovation of a hospital wing to be redesigned for recovery of Post Operation patients. This project included patient rooms, nurse's stations, and designing the space for optimal health and wellbeing.

**Clarksburg, Richmond, Huntington, Salem VA Hospitals**

During previous employment, Mrs. Chapman was heavily involved with renovations to various VA hospitals. Renovations included redesign implementing DIRT wall systems, renovations to nurse, admirative and patient areas, as well as common's areas.

**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 is 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. Casdorff was responsible for the electrical design of the 102,000 SF military training facility which houses the Armed Forces Reserve Center (AFRC), Military Entrance Processing Station (MEPS), and an Organizational Maintenance Shop (OMS). The AFRC contains the administrative and training space for the 77<sup>th</sup> Brigade Troop Command, the 1863<sup>rd</sup> Transportation Company, and the 150<sup>th</sup> 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. Casdorff 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, Craigs ville, WV**

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

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

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

**Fort Gay PK-8 School, Fort Gay, WV**

Mr. Casdorff 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 21<sup>st</sup> 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. Casdorff was responsible for the electrical power and lighting distribution design of this 22,000 SF higher education facility. This project is being designed to meet the USGBC LEED Silver.

**West Virginia Research, Education, and Technology – Building 704, South Charleston, WV**

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

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

# 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  
WWANG Camp Dawson, Multi-Purpose Building - Kingwood, WV  
BridgeValley Advanced Technology Center - South 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  
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)



# 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

**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 21<sup>st</sup> 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'

## 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 Lauderdale, FL

## Civic Affiliations

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

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.

**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 high-efficiency 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.

**Current 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.

## Mike Flowers



### Role

Plumbing/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

**Jackson County Armed Forces 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

# 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  
Bridgmont Community & Technical College  
Milton Middle School  
Barboursville Middle School  
Kenna Elementary School  
Craigsville Elementary School  
Southside Elementary/Huntington Middle School  
Jaeger - 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



## 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 20<sup>th</sup> 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.

# Lee A. Turley



## Role

Construction Administrative Assistant

Mrs. Turley serves in the capacity of the Construction Administrative Assistant for all projects at ZMM. Mrs. Turley's main responsibilities include the receipt of, log-in, the tracking and return of all Shop Drawings, RFI's, Proposal Requests, WCPR and Applications of Payment. She also generates all Change Orders and handles any paperwork or documents that pertain to the Project. This experience includes Military, Educational (K-12 and Higher Education), Office, Justice (Courthouses, Correctional, Justice Centers), and Multi-Unit Residential projects. Mrs. Turley began her career with ZMM in 2013.

## Project Experience

### Charleston Civic Center, Charleston, WV

Mrs. Turley served as Construction Administrative Assistant of the expansion and renovation to the Charleston Civic Center. Mrs. Turley was responsible for the receiving and processing of all Applications of Payment, Change Orders, Proposal Requests, RFI's, Submittals, and WCPR's that enter and leave the office of ZMM.

### State Office Building #5 & 6, 7<sup>th</sup>. 9<sup>th</sup> Floor, Charleston, WV

Mrs. Turley served as Construction Administrative Assistant on this project. Mrs. Turley was responsible for the receiving and processing of all Applications of Payment, Change Orders, Proposal Requests, RFI's, Submittals, and WCPR's that enter and leave the office of ZMM.

### Explorer Elementary, Huntington, WV

Mrs. Turley served as Construction Administrative Assistant on this project. Mrs. Turley's responsibilities included the receiving and processing of all Applications of Payment, Change Orders, Proposal Requests, RFI's, Submittals, and WCPR's that entered and left the office of ZMM.

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

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

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

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

## Employment History

2013 - Present, CA Assistant ZMM

2007 - Present, Owner, LTD Designs

2002 - 2015, Owner, West Virginia & Mountain State Gutter

2000- 2002, Clerical Office Manager, Panucci Orthodontics

1998 - 2000, Office Manager,

Charleston Gastroenterology & Assoc.

1992 - 1994, Manager, Wal-Mart

## Civic Affiliations

2008 - Present, NBC Neighborhood Outreach, St. Albans, WV

2002 - 2012, Calvary Baptist Academy PTA, Hurricane, WV

2000 - 2004, St. Albans High School PTA, St. Albans, WV



## References

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

Rita Roberson, Director of Campus Operations  
Southern WV Community and Technical College  
1601 Armory Drive  
Williamson, WV 25661  
304.236.7648

Dr. Jo Harris (Past President)  
BridgeValley Community and Technical College  
619 2nd Avenue  
Montgomery, WV 25136  
304.741.4116 (cell)

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

Greg Melton, Director of General Services  
Capitol Complex Building  
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Charleston, WV 25305  
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