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: 658630

Doc Description: Addendum No.01 Mountaineer Challenge Academy South

Proc Type: Central Purchase Order

Date Issued	Solicitation Closes	Solicitation No	Version
2019-12-09	2019-12-17 13:30:00	CEOI 0603 ADJ2000000001	2

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

RECEIVED
2019 DEC 17 AM 10: 53
WV PURCHASING DIVISION

Vendor Name, Address and Telephone Number:

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

FOR INFORMATION CONTACT THE BUYER
Guy Nisbet
(304) 558-2596
guy.l.nisbet@wv.gov

Signature X [signature] **FEIN #** 55-0676608 **DATE** 12-16-2019

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

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

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

Proc Folder: 658630

Doc Description: Mountaineer Challenge Academy South Renovation/Design

Proc Type: Central Purchase Order

Date Issued	Solicitation Closes	Solicitation No	Version
2019-11-21	2019-12-17 13:30:00	CEOI 0603 ADJ2000000001	1

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

Vendor Name, Address and Telephone Number:

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Signature X [signature] FEIN # 55-0676608 DATE 12-16-2019

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

FORM ID : WV-PRC-CEOI-001

ADDENDUM ACKNOWLEDGEMENT FORM
SOLICITATION NO.: CEOI 0603 ADJ2000000001

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)

[X]	Addendum No. 1	[ ]	Addendum No. 6
[ ]	Addendum No. 2	[ ]	Addendum No. 7
[ ]	Addendum No. 3	[ ]	Addendum No. 8
[ ]	Addendum No. 4	[ ]	Addendum No. 9
[ ]	Addendum No. 5	[ ]	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

12-16-2019
Date

NOTE: This addendum acknowledgement should be submitted with the bid to expedite document processing.
Revised 6/8/2012

ADDENDUM ACKNOWLEDGEMENT FORM
SOLICITATION NO.: CEOI 0603 ADJ2000000001

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- [x] Addendum No. 1
- [ ] Addendum No. 2
- [ ] Addendum No. 3
- [ ] Addendum No. 4
- [ ] Addendum No. 5
- [ ] Addendum No. 6
- [ ] Addendum No. 7
- [ ] Addendum No. 8
- [ ] Addendum No. 9
- [ ] Addendum No. 10

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

Authorized Signature

12-16-2019
Date

NOTE: This addendum acknowledgement 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 ADJ2000000001 **Contract Description:** Mountaineer Challenge Academy South

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: [signature] **Date Signed:** 12-16-2019

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 16th day of December, 2019

[signature]
Notary Public's Signature

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

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

Revised June 8, 2018

STATE OF WEST VIRGINIA
Purchasing Division

PURCHASING AFFIDAVIT

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

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

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

DEFINITIONS:

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

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

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

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

WITNESS THE FOLLOWING SIGNATURE:

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

Authorized Signature: _____ Date: 12-16-2019

State of West Virginia

County of Kanawha, to-wit:

Taken, subscribed, and sworn to before me this 16th day of December, 2019.

My Commission expires 10-6, 2023.

AFFIX SEAL HERE

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

NOTARY PUBLIC _____

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.

ADAM R. KRASON, PRINCIPAL

(Name, Title)

Adam R. Krason, AIA, 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)

ADAM R. KRASON, PRINCIPAL

(Authorized Signature) (Representative Name, Title)

Adam R. Krason, AIA, Principal

(Printed Name and Title of Authorized Representative)

12-16-2019

(Date)

304-342-0159 304-345-8144

(Phone Number) (Fax Number)

ZMM
ARCHITECTS
ENGINEERS

December 16, 2019

Mr. Guy Nisbet, Buyer Supervisor
Department of Administration, Purchasing Division
2019 Washington Street, East - PO Box 50130
Charleston, West Virginia 25305-0130

Subject: MCA South Renovation Design Project (CEOI ADJ2000000001)

Dear Mr. Nisbet:

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 substantial renovation ("update, upgrade, or repair") of multiple buildings "located on the old West Virginia University Tech campus in Montgomery, West Virginia. These building(s) will consist of administrative offices, classrooms and dining facilities with a commercial kitchen and dormitory."

Through our recent work on the MCA Jobs Challenge Facility at Camp Dawson, ZMM has learned that the 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 goal of the current engagement is to bring this program/opportunity to a location Southern West Virginia.

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 and experience to help successfully deliver the project. Our portfolio includes:

- Experience working with the WVARNG.
- Experience with complex renovation projects.
- Experience providing design services in Montgomery.
- Experience designing education facilities throughout West Virginia.

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, and Camp Dawson Building 202, 246, and 301 Renovation projects. In addition to our WVARNG renovation design experience, ZMM's has designed improvements to some of West Virginia's most prominent buildings including the Charleston Coliseum and Convention Center, the Culture Center, the Clay Center, and the State Capitol.

222 Lee Street, West ▪ Charleston, West Virginia 25302
304.342.0159 office ▪ 304.345.8144 fax
zmm.com

Additionally, since our founding in 1959, ZMM has also 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. Our commitment to educational design quality has been recognized with statewide and national design and planning awards. Recent award winning educational 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 eighteen design awards in the last decade – an achievement that is unrivaled in West Virginia.***

Finally, as noted above, ZMM has extensive experience providing design and planning services at the former WVU Tech campus in Montgomery. This experience includes providing master planning services to BridgeValley, as well as providing design services to renovate the 77,000 SF Davis Hall into their main academic building in Montgomery. ZMM has also assisted West Virginia University with a project at the Engineering Classroom Building (ECB), and assisted KVC develop plans to improve an existing dormitory (Ratliff Hall). Most recently, ZMM conducted an assessment of Orndorff Hall for the West Virginia Department of Agriculture. As part of the efforts noted above, ZMM has also reviewed the 2011 study conducted by Sightlines, which outlines the needs for each significant building on campus, including Old Main and Maclin Hall.

Thank you for taking the time to review the attached expression of interest that includes information about our proposed approach for the MCA South Renovation Design Project, as well as ZMM's qualifications, and relevant project experience. Additionally, please visit our website at www.zmm.com to see the full range of renovation and education projects that we have designed. We appreciate your consideration for this important endeavor, and look forward to meeting with you to discuss the project in greater detail.

Respectfully submitted,
ZMM Architects and Engineers

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

222 Lee Street, West ▪ Charleston, West Virginia 25302
304.342.0159 office ▪ 304.345.8144 fax
zmm.com

Table of Contents

ZMM
ARCHITECTS
ENGINEERS

Mountaineer ChalleNGe Academy South – Renovation/Design Project Approach, Management Plan, Quality Control Plan, Cost Control Plan

Background and Project Understanding

Based upon ZMM's understanding of the information contained in the request for expression of interest, the project involves a substantial renovation ("update, upgrade, or repair") of multiple buildings "located on the old West Virginia University Tech campus in Montgomery, West Virginia. These building(s) will consist of administrative offices, classrooms and dining facilities with a commercial kitchen and dormitory." ZMM has extensive experience providing design and planning services at the WVU Tech campus in Montgomery. We have provided Master Planning services to BridgeValley, and also helped to renovate the 77,000 SF Davis Hall into their main academic building in Montgomery. We have also assisted West Virginia University with a project at the Engineering Classroom Building (ECB), and assisted KVC develop plans to improve an existing dormitory (Ratliff Hall). Finally, ZMM recently conducted an assessment of Orndorff Hall for the West Virginia Department of Agriculture. As part of the efforts noted above, ZMM has also reviewed the 2011 study conducted by Sightlines, which outlines the needs for each significant building on campus, including Old Main and Maclin Hall.

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 goal of the current engagement is to bring this program to Southern West Virginia.

The success rate of the program 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 recent experience working with the West Virginia Army National Guard (at Camp Dawson) on the Mountaineer ChalleNGe Academy Job Challenge Facility, our experience – noted above – providing design services in Montgomery, 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 proposed renovation project(s) also demonstrates the need for a full service design team with experience working with the West Virginia Army National Guard. ZMM has all of the technical professionals - including architects, engineers (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 Jobs Challenge Facility, Camp Dawson Building 202, 301, and 246 Improvements, the Marshall County Readiness Center, and the CFMO Expansion.

Mountaineer ChalleNGe Academy South: Renovation Approach

Renovation projects require a unique approach, and ZMM has provided design services on renovation projects throughout West Virginia. The first phase in a successful renovation project involves conducting a thorough examination of the existing facilities 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 each building identified for renovation. 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 - South 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(s).*

Mountaineer ChalleNGe Academy South: Project Management Plan

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

Other key team members will include:

Rodney Pauley, AIA	Project Management / Architect
Carly Chapman	Interior Designer
Ivan Herndon, PE	Electrical Engineer
Mike White, PE	Structural Engineer
Bob Doeffinger PE	Engineering Principal/Mechanical Engineer
John Pruett, PE	Mechanical Engineer
Mike Flowers	Plumbing Designer
Mark Epling, AIA	Specifications Writer

FaLena Perry	Construction Administrator
Amy Rhodes	Construction Administrative Assistant

ZMM's team has successfully collaborated on multiple projects for the WVARNG, and each team member is familiar with the standards, requirements, and processes that are utilized by the Guard. Additionally the ZMM team has participated in the design of some of the most innovative educational facilities across West Virginia including an Applied Technology Center for Southern WVCTC, 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, 246, and 301 Improvements
- Marshall County Readiness Center
- Logan-Mingo Readiness Center
- Parkersburg Readiness Center
- Williamstown Elementary School
- Building 5, 6, & 7 Improvements
- Beech Fork Lodge
- West Virginia State Police Information Services Center
- Edgewood Elementary School
- West Virginia State Lottery Headquarters Renovation
- Brooks Manor Addition and Renovation
- WVRTP Building 740 Improvements

ZMM has a history of working to successfully projects under challenging budget and schedule constraints for the WVARNG. We commit to working with you to meet the budget and schedule for the Mountaineer ChalleNGe Academy South project. 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 program at the proposed location in Montgomery.

About ZMM Architects & Engineers

ZMM
ARCHITECTS
ENGINEERS

LOCATION:
222 Lee Street, West
Charleston, WV

CONTACT:
Phone 304.342.0159
Fax 304.345.8144
www.zmm.com

HISTORY

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

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

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

ZMM
ARCHITECTS
ENGINEERS

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

Advantages of an integrated Design Approach:

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

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

SERVICES

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

Design
Architectural Design
Sustainable Design
Interior Design
Lighting Design
Landscape Architecture

Engineering
Civil
Mechanical
Electrical
Structural
Net Zero Buildings
Energy Consumption Analysis

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

Award Winning Design

ZMM ARCHITECTS ENGINEERS

2019
AIA West Virginia Chapter: Honor Award
AIA West Virginia Chapter: Citation Award
AIA West Virginia Chapter: People's Choice Award
Charleston Coliseum & Convention Center
Charleston, West Virginia

2018
AIA West Virginia Chapter: Citation Award
Unbuilt Project
Charleston EDGE
Charleston, West Virginia

2017
AIA West Virginia Chapter: Merit Award
Achievement in Architecture
Explorer Academy
Huntington, West Virginia

AIA West Virginia Chapter: Merit Award
Achievement in Sustainability
Logan - Mingo Readiness Center
Holden, West Virginia

2016
AIA West Virginia Chapter: Merit Award
Achievement in Architecture in Interior Design
Christ Church United Methodist
Charleston, West Virginia

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

Award Winning Design

ZMM ARCHITECTS ENGINEERS

AIA West Virginia Chapter: Merit Award
Achievement in Architecture
Kenna Pk-5 School
Kenna, West Virginia

2014

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

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

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

2012

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

2011

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

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

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

Adam R. Krason, AIA, LEED AP, ALEP

Role
Principal

Professional Registrations
Registered Architect (WV, OH, KY, VA, MD, NJ)
LEED Accredited Professional
Accredited Learning Environment Professional
NCARB (55,984)
Construction Specifications Institute (CSI)
Construction Documents Technician (CDT)

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

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

Project Experience

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

Education
Bachelor of Architecture, The Catholic University of America, 1998

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

Employment History
2007 - Present, Principal, ZMM
2007 - Present, Board of Directors, ZMM
2003 - Present, Architect, Project Manager, ZMM
1998 - 2003, Architect, Project Manager, Charleston Area Architectural Firm

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

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

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

Joint Interagency Training & Education Center (WVARNG), Kingwood, WV Mr. Krason was responsible for the preliminary programming, and participated in the schematic design of the 180,000 SF addition to the Regional Training Institute at Camp Dawson. Mr. Krason was also responsible for managing the production effort for the billeting (hotel) expansion, which increased the total billeting capacity at the JITEC to 600 rooms. This project received LEED Gold Certification.

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

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

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

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

Participated on the team that won the following awards and acknowledgements:
2019 WV AIA Honor Award Charleston Coliseum & Convention Center, Charleston, WV
2018 WV AIA Citation Award Charleston EDGE, Charleston, WV
2017 WV AIA Merit Award Logan-Mingo Readiness Center, Holden, WV
2016 WV AIA Merit Award Christ Church United Methodist, Charleston, WV
2015 WV AIA Merit Award Edgewood Elementary School, Charleston, WV
2014 WV AIA Merit Award Girl Scouts of Black Diamond Council, Charleston, WV
2011 WV AIA Honor Award Joint Interagency Training and Education Center (JITEC), Kingwood, WV
2011 AIA Honor Award State Office Building #5, 10th Floor Renovation, Charleston, WV

The West Virginia Board of Architects

certifies that

ADAM R. KRASON

is registered and authorized to practice
Architecture in the State of West Virginia.

In testimony whereof this certificate has been issued
by the authority of this board.

Certificate Number [redacted]

The registration is in good standing until June 30, 2019.

Board Administrator

Rodney Pauley, AIA

Role
Project Manager

Professional Registrations
Registered Architect (WV)

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

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

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

Project Experience

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

BridgeValley Community and Technical College - Master Plan, Montgomery, WV
As part of an effort to provide overall Master Plan services to BridgeValley CTC, ZMM worked with various stakeholders to develop a Master Plan for BridgeValley's current and future facilities at the Tech Park. The Master Plan incorporated the need to develop a consistency between BridgeValley's

Education
Bachelor of Architecture, University of Tennessee, 1992

Associate of Science, West Virginia Institute of Technology, 1986

Employment History
2010 - Present, Project Manager, ZMM
2008 - 2010, Project Manager, GA Firm
2006 - 2008, Project Manager, GA Firm
2005 - 2006, Sr. Project Architect, GA Firm
Jan. 2005 - Aug. 2005, Project Architect, VA Firm

Civic Affiliations
- American Institute of Architects, Member

Montgomery and South Charleston campuses, while also integrating the brand into the Park. The final design included planning for a new classroom and laboratory building adjacent to Building 704, across from the Advanced Technology Center. Signage, site circulation, parking, and campus amenities were also included in this planning process.

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

WV Lottery Headquarters, Charleston, WV
Mr. Pauley was the project manager for a design team that prepared construction documents for renovations to the existing WW Lottery Headquarters complex in Charleston, WV. Renovations to the existing 12-story office building included demolition and reconstruction of three floors of tenant space and demolition and replacement of the existing roof along with various minor renovations throughout the office tower. The existing 5-story parking deck will undergo an extensive structural renovation, includes: replacing bearing pads, patch & repair of concrete members and the addition of waterproofing protection. The existing warehouse under the parking deck was enlarged to provide additional storage space.

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

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

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

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

The West Virginia Board of Architects

certifies that

RODNEY ALLEN PAULEY

is registered and authorized to practice
Architecture in the State of West Virginia.

In testimony whereof this certificate has been issued
by the authority of this board.

Certificate Number [redacted]

The registration is in good standing until June 30, 2020.

Board Administrator

Nathan Spencer, AIA

Role
Architect

Professional Registrations
Registered Architect (WV)

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

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

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

Project Experience

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

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

Jackson County AFRC, Millwood, WV
Mr. Spencer participated in the schematic design of the 76,000 SF Reserve Center in Jackson County, West Virginia. Mr.

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

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.

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.

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

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 21st Century Learning Environment, with a focus on integrating technology into the delivery of the curriculum. Instructional areas will be located off of an open 'exploratorium' that is being designed to function like a children's museum, providing a variety of learning opportunities, and flexible educational spaces. The school 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.

The West Virginia Board of Architects

certifies that

NATHANIEL HAROLD SPENCER

is registered and authorized to practice
Architecture in the State of West Virginia.

In testimony whereof this certificate has been issued
by the authority of this board.

Certificate Number [redacted]

The registration is in good standing until June 30, 2020.

Board Administrator

Carly Chapman

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.

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
2010 - 2012, Interior Design Intern, ZMM

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.

Bluefield Primary School, Bluefield, WV
The new school is the result of a consolidation of two local schools in the Bluefield area. The county wanted to bring in architectural elements from both of the former schools. This was accomplished by oval vaulted ceilings and circular windows throughout the building. The school will house Pre-k-2nd grade students. Keeping the Bluefield Beavers in mind, the school colors are found throughout the design with the addition of complimentary colors to creates a colorful learning environment for the students. No school can be designed without a little fun in mind... A large dry erase mural spans the length of the media center allowing students to express their imaginations.

Ravenswood Middle School, Ravenswood, WV
Ravenswood Middle School is an addition to Ravenswood Highschool. The project allows for both schools to share one cafeteria and improve the exterior of the existing high school with the new entrance of the middle school. The interiors were clean and pattern filled using the school colors, insuring an easy transition from one school to the other.

Williamstown Elementary School, Williamstown, WV
When designing a new school built on tradition, the initial thought of school colors and clean lines comes to mind. This was not the case with the new Williamstown Elementary School. Using the school colors as our basis of design, the county was open to adding complimentary colors to entice the

students for a bright and exciting learning environment. Colorful floor pattern adorns the corridors, using the tile for wayfinding and structure for students. In the media center you will find a custom designed tree, dripping in lights mimicking fireflies and a perfect campfire setting for storytelling. The tradition is kept alive with the pops of Maroon and Gold throughout the cafeteria and gym.

Mountain Valley Elementary School, Green Valley, WV
Mountain Valley is a new facility currently under construction and set to open fall of 2019. The concept for the school was simple – fundamentals. Primary colors and geometric shapes create a fun and easy way to keep the students engaged and ready to learn, while sticking to the basics. A large wall in the media center allows for quiet areas to study or play with built in casework depicting the word "READ" allowing for shelving and seating within the oversized letters. The scheme continues throughout the school seen in the polished concrete floor pattern and 3D shapes protruding above the main entrance for a guaranteed jaw dropping design.

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. The PK-2 is community driven in the design. House facades and custom glass adorn the halls drawing the eye to the exposed structure above. The ceilings reflect the sky and are divided by clouds. Collins Middle also was design with the environment in mind. Using biophilic design, wood planked feature walls are found in the entrance corridor and expand to the open structure above.

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, 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 DIRTT wall systems, renovations to nurse, admirative and patient areas, as well as common's areas.

Robert Doeffinger, PE

ZMM ARCHITECTS ENGINEERS

Role
Engineering Principal

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

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

After graduate school in Architectural Engineering, Mr. Doeffinger joined ZMM. He has over 35 years design experience in mechanical and electrical systems for buildings. He has a broad range of engineering experience in education, industrial and manufacturing facilities, large retail, correctional and jails, office buildings, and military facilities.

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

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

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

Education
Master of Science Architectural Engineering, Pennsylvania State University, 1976

Bachelor of Science Mechanical Engineering, West Virginia University, 1973

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

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

State Office Buildings #5, 10th Floor Charleston, WV Mr. Doeffinger was the Project Engineer for this renovation project The renovation of the tenth floor of State Office Building #5 on the State of West Virginia Capitol Campus was recently completed for the Office of Technology. The renovation was designed to meet the United States Green Building Council's LEED for Commercial Interiors standard. The renovations also include a low profile cable management system which maximizes the flexibility of the space. To commence the project, ZMM conducted a detailed investigation of State Office Buildings 5, 6, & 7, which included recommendations for improvement of the facilities. The renovation of the 10th floor of Building #5 was the first major interior renovation project that responded to the recommendations.

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

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

West Virginia Army National Guard, Joint Interagency Training & Education Center, Camp Dawson, WV Mr. Doeffinger was responsible for the mechanical engineering design of the 600 room billeting expansion to the Regional Training Institute at Camp Dawson. The project is served by a 4 - pipe hot and chilled water system with an energy recovery ventilation system. This project received LEED Gold Certification.

West Virginia Research, Education, and Technology – Building 704, South Charleston WV Mr. Doeffinger is the engineering principal-in-charge of preparing a life safety analysis of the building as well as design services to improve the exterior façade of Building 704 at the WV Research, Education, and Technology Park. Building 704 had previously been utilized as a campus maintenance facility by Union Carbide and DOW Chemical. Bridgemont began utilizing the facilities for instruction in the Spring of 2011.

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

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

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

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

John Pruett, PE, LEED AP

Role
Mechanical Engineer

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

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

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

Project Experience

Wood County Justice Center, Parkersburg, WV Mr. Pruett was responsible for the HVAC systems design for the LEED Silver project comprised of the judicial courts, Sheriff's department and holding cell area. The project utilizes 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.

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

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

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

Additional Education Experience

Explorer Academy
John Adam Middle School
Salt Rock Elementary School

Project Experience with other firms

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

Michael J. White, PE

ZMM ARCHITECTS ENGINEERS

Role
Structural Engineer

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

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

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

Other Jobs from Past Employers:
Monongalia County Justice Center - Morgantown, WV
Lewis Co. Judicial Annex - Weston, WV
Charleston Correctional Work Release Center - Charleston, WV
Stevens Correctional Facility - Welch, WV
Marsh Fork Elementary School - Naoma, WV
WVANG Camp Dawson, Multi-Purpose Building - Kingwood, 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)

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

ZMM ARCHITECTS ENGINEERS

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:

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
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

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

Erma Byrd Center
Joint Interagency Training & Educational Center (JITEC)
Huntington East Middle School
WV Army National Guard - Glen Jean AFRC
Wood County Justice Center
Tucker County Courthouse Annex
Southern WV Community & Technical College
Bridgemont Community & Technical College
Milton Middle School
Barboursville Middle School
Kenna Elementary School
Craigsville Elementary School
Southside Elementary/Huntington Middle School
Iaeger - 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

FaLena Perry, CDT

Role
Construction Administrator

Professional Registrations
EIT

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

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

Project Experience

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

Ravenswood Middle School, Ravenswood, WV
Mrs. Perry served as Construction Administrator of the high school addition that houses the two-story Ravenswood Middle School making this the 20th facility in WV that combines 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.

WVARNG Experience

ZMM
ARCHITECTS
ENGINEERS

Joint Interagency Training & Education Center

WVARNG

ZMM ARCHITECTS ENGINEERS

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.

Jackson County Armed Forces Reserve Center

WVARNG

ZMM ARCHITECTS ENGINEERS

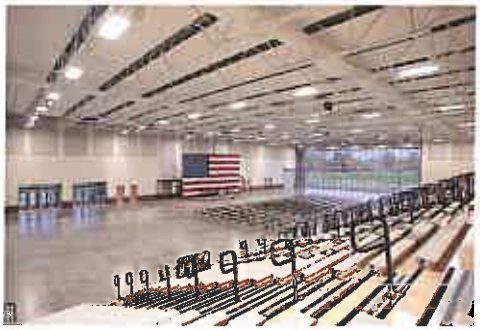
LOCATION:
Millwood, WV

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.

Logan-Mingo Readiness Center

WVARNG

ZMM ARCHITECTS ENGINEERS

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

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

Morgantown Readiness Center

WVARNG

ZMM ARCHITECTS ENGINEERS

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 1-201st Field Artillery, a significant portion of the Morgantown Readiness Center supports the 249th Army Band. To support the band, the Readiness Center contains a performance hall, pre-function spaces, as well as a variety of training and rehearsal areas.

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

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

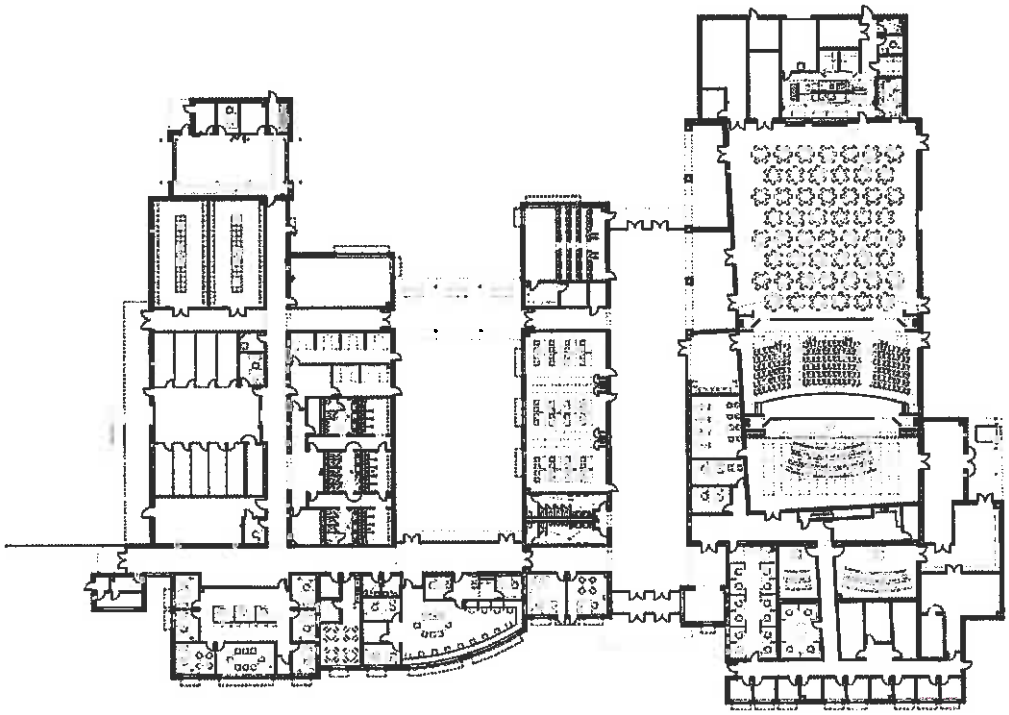
Morgantown Readiness Center

WVARNG

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

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

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



Construction & Facilities Management Office Expansion

WVARNG

ZMM ARCHITECTS ENGINEERS

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.

Robert C. Byrd - Regional Training Institute

WVARNG

ZMM ARCHITECTS ENGINEERS

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.

Glen Jean Armed Forces Reserve Center

WVARNG

ZMM ARCHITECTS ENGINEERS

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.

Renovation Experience

ZMM
ARCHITECTS
ENGINEERS

Charleston Coliseum & Convention Center

ZMM ARCHITECTS ENGINEERS

LOCATION:
Charleston, WV

SIZE:
283,000 SF

COMPLETION:
Est. 2018

COST:
$75M

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

AWARDS:
2019 AIA Honor Award
West Virginia Chapter

2019 AIA Citation Award
West Virginia Chapter

2019 AIA People's Choice
West Virginia Chapter

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

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

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

Charleston Coliseum & Convention Center

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

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

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

Charleston EDGE Complex

ZMM ARCHITECTS ENGINEERS

LOCATION:
Charleston, WV

SIZE:
41,250 SF

COMPLETION:
TBD

COST:
$10M

CONTACT:
Mr. David Molgaard
Former City Manager
City of Charleston
501 Virginia Street, E.
Room 101
Charleston, WV 25301
304.389 2011 (cell)

AWARD:
2018 AIA Citation Award
West Virginia Chapter
Unbuilt Project

How does West Virginia attract and retain young talent? How do we keep our children and grandchildren in the State when the opportunities for them seem to be so much brighter in other areas? How do we stop the brain drain as our best and our brightest young professionals relocate to DC, Charlotte, and other urban areas? These questions have plagued West Virginians for years, and the proposed Charleston EDGE Complex will be one piece of the solution.

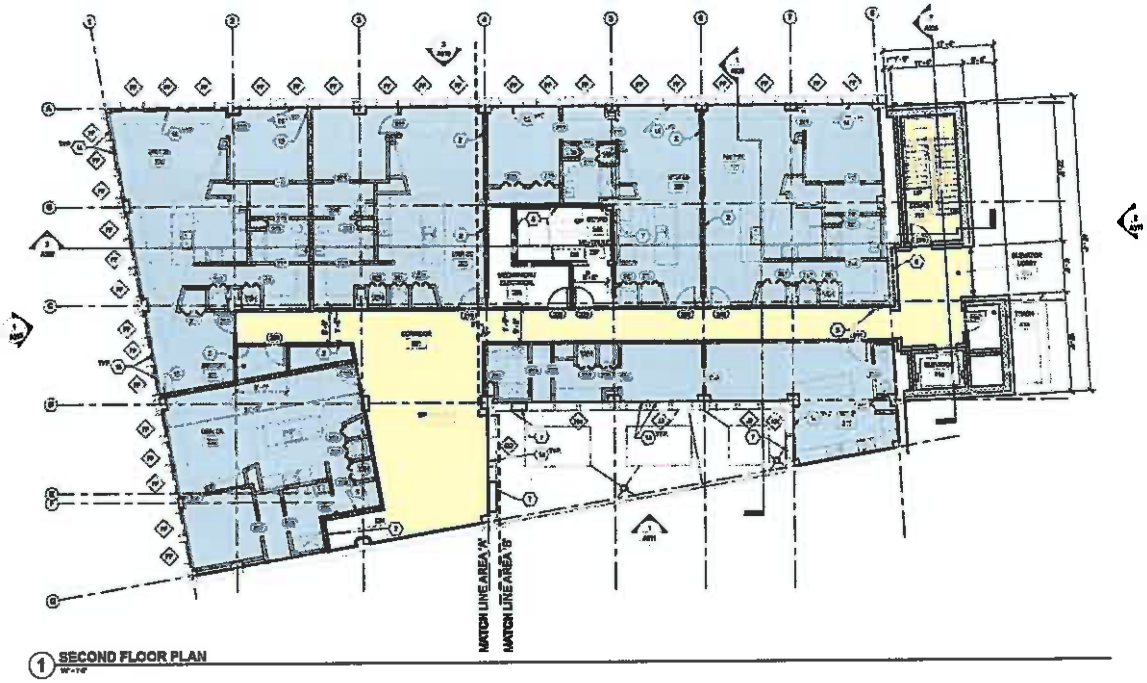
The proposed Charleston EDGE mixed use facility is unlike a traditional mixed-use development. While the facility may contain 30-40 residential units, with program space, and retail on the first level, the real purpose of EDGE is to provide a facility that will serve to provide housing and activity space for an innovative program that aims to attract and retain young talent to the Charleston community. EDGE will help to cultivate the young talent that participates in the program, and will serve as a sustainable economic development tool in our urban village district.

ZMM Architects and Engineers in association with Cooper Carry is currently assisting in the design and development of the Charleston EDGE Complex. The ZMM-Cooper Carry team conducted a visioning and design session where the design team obtained input from various community leaders and young professionals to investigate scenarios to optimize the potential development.

Charleston EDGE Complex

Following these meetings, ZMM has been developing several of the strategies to facilitate decision making by the project stakeholders. The current design solutions include a retail, lobby, and surface parking pedestal, with a variety of unit types occupying the upper levels.

The pedestal creates the opportunity for a raised amenity deck, with an adjacent club room and activity spaces. The advancements that Charleston has made to develop a vibrant downtown, create an active arts community, and engage young talent through organizations like Leadership Kanawha Valley and Generation Charleston have paid dividends for the business community – and Charleston EDGE is the next step in facilitating a bright future for the Charleston area.



Wood County Justice Center Renovation

ZMM ARCHITECTS ENGINEERS

LOCATION:
Parkersburg, WV

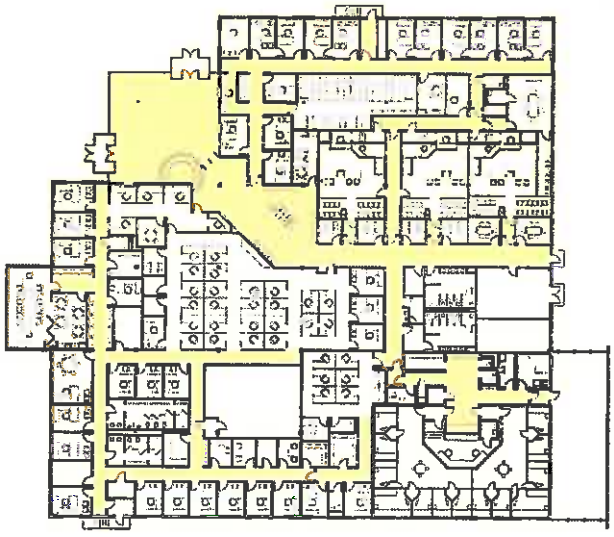
SIZE:
32,000 SF

COST:
$5M

COMPLETION:
2011

CONTACT:
Mr. Blair Couch
Commissioner
No. 1 Court Square
Suite 205
Parkersburg WV 26101
304.424.1984
dbc@woodcountywv.com

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



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

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

Girl Scouts of Black Diamond Council

Volunteer Resource Center and Girl Zone/Urban Camp

ZMM ARCHITECTS ENGINEERS

LOCATION:
Charleston, WV

SIZE:
27,928 SF

COST:
$5M

COMPLETION:
Fall 2013

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

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

Interior Before Pictures

The New Girl Scouts of Black Diamond Council Volunteer Resource Center and Girl Zone/Urban Camp is located on the West Side of Charleston, WV. The 24,650 SF project completely renovates and upgrades the existing buildings at 321 Virginia Street. The buildings were built in the early and mid-1900's, and were used as a car dealership showroom and parts building until 2008. By the time the Girl Scouts took possession of the building, it had fallen into a state of disrepair. The facility required environmental remediation, and the entire roof structure was damaged and had to be removed.

The Girl Scouts of Black Diamond Council purchased the vacant buildings in 2011 with the intent of converting them into a girl-centered facility for members and a volunteer-enrichment center for program resources and training. The program for the facility includes administrative offices, community/meeting gathering spaces, as well as a small hotel (Urban Camp) for Girl Scouts visiting Charleston. The Girl Scouts undertook the effort to transform the facility, creating an architectural style that would appeal to girls and young women, while utilizing colors and materials that would not become dated.

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

The storefront is etched with images of girl scouts and scouting slogans. The storefront is backlit in the evening, allowing the entire façade to reflect the function of the building. The entry is accentuated with a more vertical element and signage, giving hierarchy to the various elements, while the office areas are recessed from the corner with smaller openings, and a masonry veneer. Each zone has a unique identity.

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

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

State Office Building Renovation Experience

ZMM ARCHITECTS ENGINEERS

State Office Building No. 6: 8th Floor (Department of Education)
11,800SF

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

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

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

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

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

State Office Building Renovation Experience

ZMM ARCHITECTS ENGINEERS

State Office Building No. 6: Floors 2-3 (Department of Education)
State Office Building No. 6: 4th Floor (Division of Personnel)
66,000SF

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

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

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

State Office Building Renovation Experience

ZMM ARCHITECTS ENGINEERS

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

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

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

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

Montgomery Experience

ZMM
ARCHITECTS
ENGINEERS

BridgeValley Community & Technical College

Davis Hall Renovation

ZMM ARCHITECTS ENGINEERS

LOCATION:
Montgomery, WV

SIZE:
77,215 SF

COMPLETION:
Summer 2012

COST:
$4M

CONTACT:
Dr. Jo Harris, Former President
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).

BridgeValley Community & Technical College

Master Plan

ZMM ARCHITECTS ENGINEERS

LOCATION:
Montgomery, WV

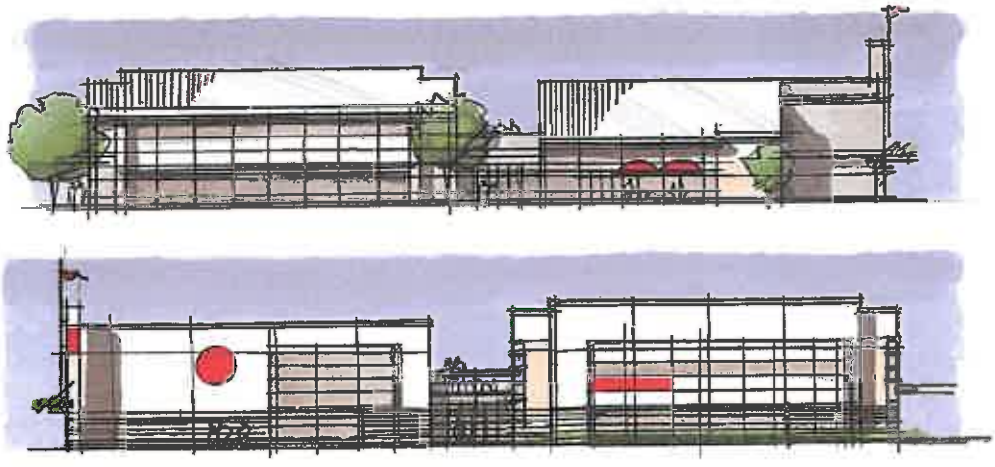
COST:
So. Charleston Campus
$11.25M Est.

Montgomery Campus
$12.8M Est.

CONTACT:
Dr. Jo Harris, Former President
619 2nd Avenue
Montgomery, WV 25136
304.741.4116 cell

ZMM provided services to prepare a master plan for the Montgomery and South Charleston Campuses for Bridgemont Community and Technical College. The master plan is in response to the West Virginia Higher Education Policy Commission's standard process for a comprehensive assessment of facilities needs, costs, and priorities. This enables the HEPC to provide future funding to Bridgemont based on justified standards tied to legislative funding agendas. The final plan shall be appropriate to Bridgemont's size, mission, and enrollment and to the fiscal constraints within which it operates.

The master plan includes assessments of existing facility conditions on the Montgomery Campus and South Charleston Campus, including deferred maintenance, building code issues, and energy efficiency. An analysis was included identifies current and future space needs, parking requirements, current land use and future property acquisition, infrastructure development, sustainability, landscaping, and pedestrian circulation. The plan will also include project budgeting and a multi-year capital improvement plan. An assessment of the impact of projected enrollment and demographic changes on facilities will be provided along with a delineation of how the campuses will interact and support each other and improve efficiency.



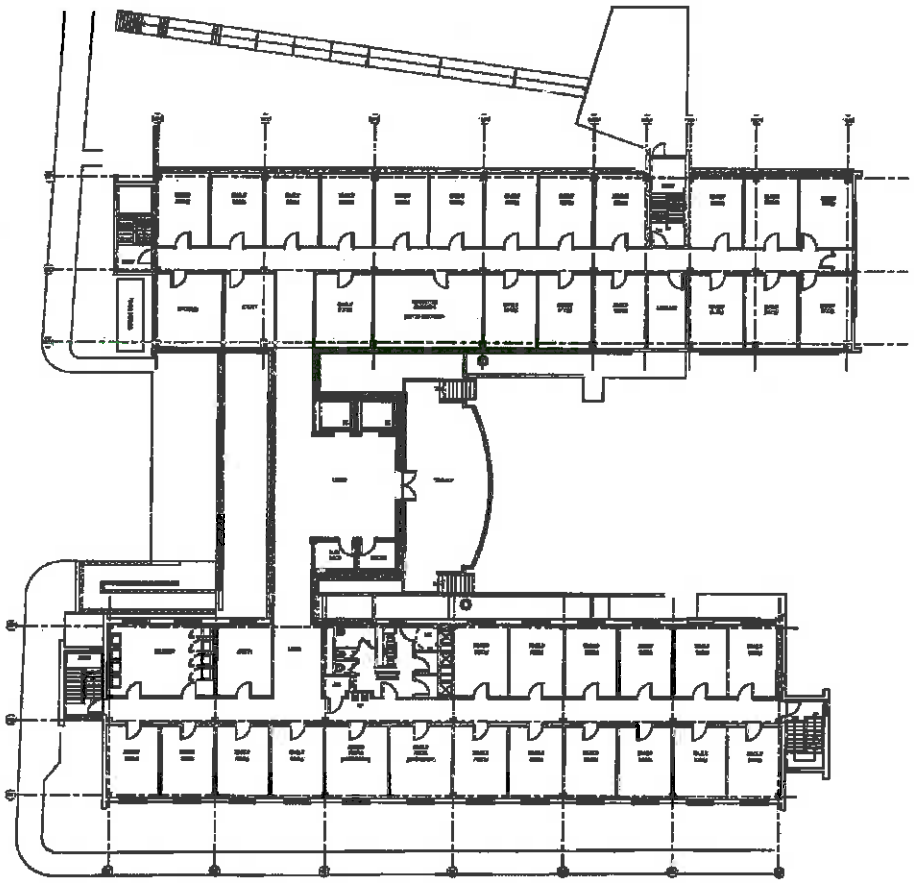
KVC Ratliff Hall Renovation

ZMM ARCHITECTS ENGINEERS

LOCATION:
Montgomery, WV

SIZE:
Ground 6,109 SF
First 13,256 SF
Second 13,256 SF
Third 13,256 SF
TOTAL 45,877SF

CONTACT:
Thomas S. Bailey
Former Executive VP
for Strategic Initiatives
KVC HEALTH SYSTEMS, INC.
304.542.4698



Educational Experience

ZMM
ARCHITECTS
ENGINEERS

Southern WV Community & Technical College

Applied Technology Building and Campus Planning

ZMM ARCHITECTS ENGINEERS

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

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.

Erma Byrd Center

Public Higher Education Center

ZMM ARCHITECTS ENGINEERS

LOCATION:
Beaver, WV

SIZE:
33,000 SF

COMPLETION:
August 2007

COST:
$7.5M

CONTACT:
Richard Donovan
Senior Director of Facilities
1018 Kanawha Blvd., E.
Suite 700
Charleston, WV 25301
304.558.2101

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.

Southside Elementary & Huntington Middle School

Cabell County Schools

ZMM ARCHITECTS ENGINEERS

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 21st 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.

St. Albans High School

Kanawha County Schools

ZMM ARCHITECTS ENGINEERS

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.

Huntington East Middle School

Cabell County Schools

ZMM ARCHITECTS ENGINEERS

LOCATION:
Huntington, WV

SIZE:
100,500 SF

COMPLETION:
2013

COST:
$23M

CONTACT:
Ryan Saxe
Superintendent
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 6th, 7th, and 8th 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.

Explorer Academy

Cabell County Schools

ZMM ARCHITECTS ENGINEERS

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 outdoor rooftop 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

ZMM ARCHITECTS ENGINEERS

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.