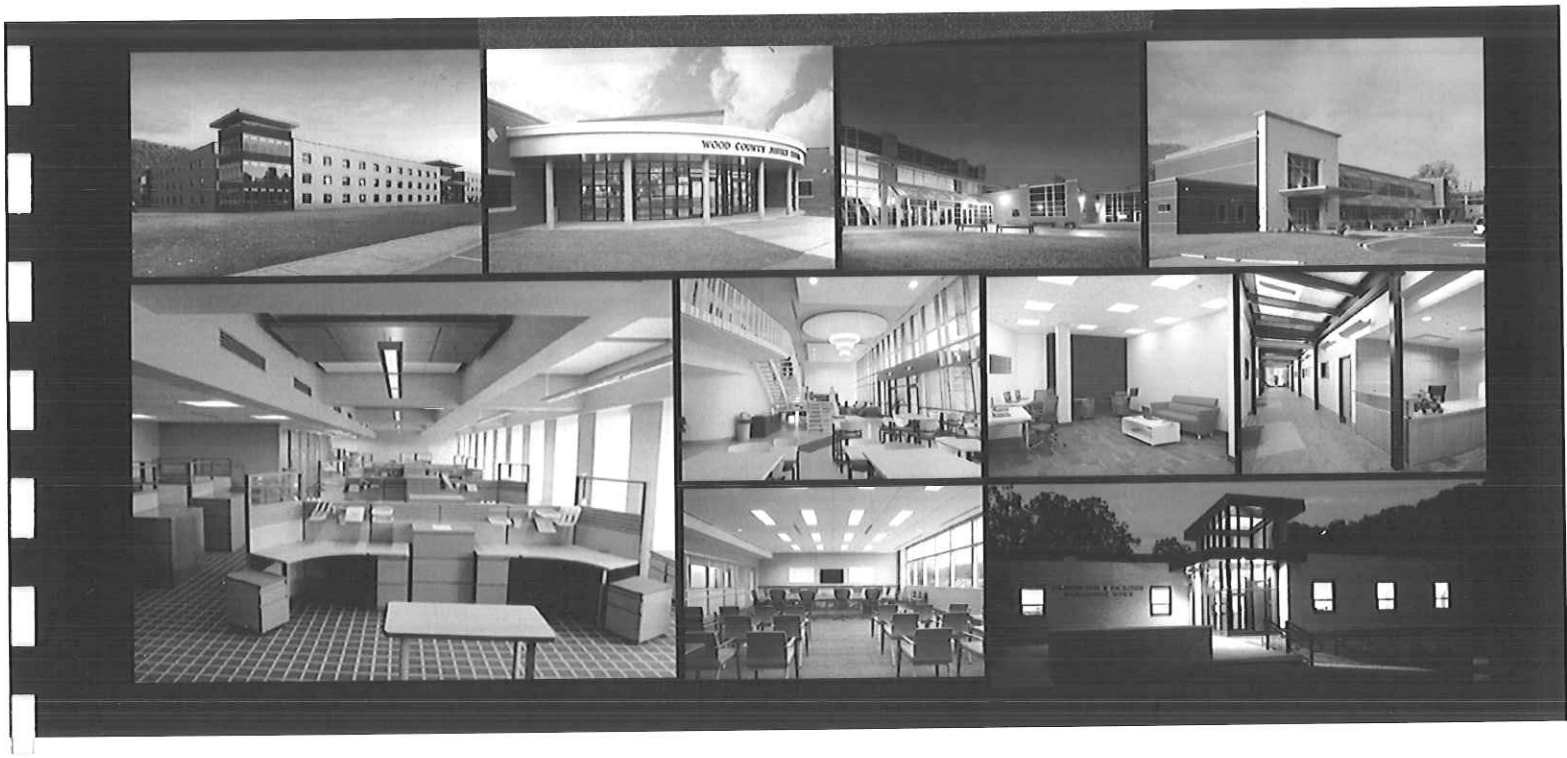


Expression of Interest for:

The West Virginia Lottery Building
- *Renovations to Floors 7, 8, & 9* -

EOI# LOT502

February 26, 2013

ZMM
ARCHITECTS & ENGINEERS

ZMM
ARCHITECTS & ENGINEERS

February 26, 2013

Ms. Connie Oswald, Senior Buyer
Department of Administration, Purchasing Division
2019 Washington Street, East
Charleston, West Virginia 25305-0130

Subject: **Architectural and Engineering Services to Renovate Floors 7, 8 & 9 of the WV Lottery Building – EOI# LOT502**

Dear Ms. Oswald:

ZMM Architects and Engineers is pleased to submit the attached information to demonstrate our experience and our qualifications to provide professional architectural and engineering services to renovate floors 7, 8, & 9 of the Lottery Building. Established in 1959, ZMM is a Charleston based, full service A/E firm, and is noted for design excellence and client focus. Our integrated design approach makes ZMM unique among design firms in West Virginia, and will help to ensure the quality of the services that we will provide. ZMM is uniquely qualified for the following reasons:

- **Experience.** ZMM has provided design services on renovation projects throughout the Kanawha Valley. Our experience has led us to develop a two phased approach that starts with a detailed architectural and engineering assessment that runs concurrently with the visioning and programming process. This approach has led to many successful renovation projects, including: Improvement to State Office Buildings 5, 6 & 7, the Renovation of Davis Hall for Bridgemont CTC, the Dow Headquarters Building on MacCorkle Avenue, and the new Girl Scouts of Black Diamond Council Volunteer Resource Center, which is located in a former auto dealership on Charleston's West Side. ZMM also has experience providing design services on 900 Pennsylvania Avenue (when it was under previous ownership).

- **Quality.** ZMM has a history of providing high quality design services on office building and renovation projects throughout the Kanawha Valley. Recent experience includes the Renovation of the 10th Floor of State Office Building #5 for the Office of Technology, the CFMO Expansion for the West Virginia Army National Guard, as well as new West Virginia Housing Development Fund Office in Kanawha City. All three office projects were honored with statewide design awards by the American Institute of Architects West Virginia Chapter.

- **Proximity.** All of the design professionals providing services on this project will be located out of our office on Charleston's historic West Side. Our ability to provide integrated design services, as well as our ability to have regular access to the Lottery Building due to our location, will lead to an improved design and construction process for the West Virginia Lottery.

Thank you for taking the time to review the attached expression of interest which includes our recommended project approach, as well as information regarding the history, services, personnel, experience, and qualifications of ZMM Architects and Engineers. Additionally, please visit our website at www.zmm.com to see the full range of projects that we have designed. We appreciate your consideration for this important assignment.

Respectfully submitted,

ZMM, Inc.

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

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

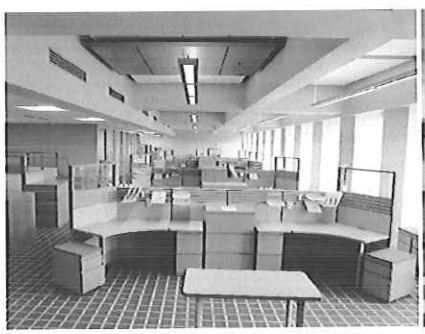
Table of Contents

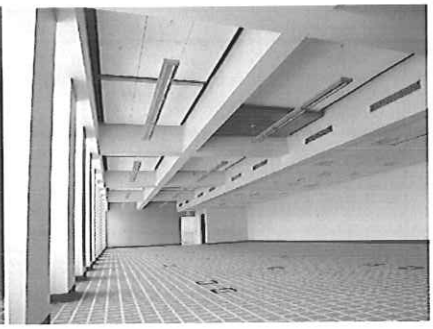
Lottery Building Floors 7, 8, & 9 - Renovation Project Approach

ZMM Architects and Engineers have developed a unique approach for renovation projects. The first step in a successful renovation project involves conducting a thorough examination of the existing facilities to identify both deficiencies and opportunities. The purpose of the investigation will be to determine the condition of the major building systems, and to identify both immediate and long term enhancements that will be required to fully improve the building. This approach will be modified for the Lottery Building to include an assessment of the recent improvements to the building to ensure that the systems selected for the 7th, 8th, and 9th floor are appropriate and compatible.

ZMM recently provided services on a similar project, the renovation of the 5th Floor of the business incubator at the Charleston Area Alliance. Prior to the renovation, ZMM examined the building systems as well as the interior conditions and finishes on the other floors. Working with the Alliance, ZMM developed a strategy for both building systems and finishes that improved upon the existing conditions, while still complementing the overall aesthetic of the building.

Many of the building system enhancements, including the use of LED lighting and a domestic solar hot water system, focused on improving the energy efficiency of the space, and like the Lottery Building project, pursued an energy rebate to help fund the improvements. Additional relevant experience includes the Renovation of State Office Building #5, 10th Floor for the Office of Technology. The renovation of the 10th Floor set a new standard for efficiency from both an energy perspective and space utilization standpoint. **The project also included a structural assessment of the entire building, which resulted in the implementation of addition bracing to meet new seismic requirements.**





The examination process will begin with a review of all existing plans of the building, and, if required, the production of as-built plans for the 7th, 8th, and 9th floors. Once the base plans are completed, existing conditions are documented with photographs that are keyed to the plans. Additionally, all major mechanical and electrical equipment is identified on the plans, and the condition is noted in the assessment. The investigation is conducted by a team of building design professionals including Architects, Civil, Structural, Electrical, and Mechanical Engineers. The team will focus the investigation on the following systems:

- Space Planning
- Exterior Signage
- Life Safety and Egress (Coordinated with the State Fire Marshal)
- Accessibility
- Building Envelope (including roofing if required)

- Interior Conditions and Finishes
- Plumbing Systems
- Electrical Service and Distribution, Emergency Power
- Lighting
- Mechanical Systems
- Data/IT Infrastructure

The assessment will also include the requested infrared scan of the existing electrical equipment in the building, inspection of the roof anchor safety system, as well as a structural review of the entire facility. Based upon our recent renovation experience, ZMM Architects and Engineers have developed a comprehensive assessment tool for building renovation projects (a copy is attached for your review). Our ability to provide comprehensive architecture and engineering services from our office in Charleston will help ensure that all of the design professionals, including architects, interior designers, as well as mechanical and electrical engineers have the access to the building required to develop well-coordinated design solutions.

Once the investigation is complete, the team will conduct an analysis to develop a list of recommended improvements to the 7th, 8th, and 9th floors, as well as a list of long-term improvements required to the Lottery Building. These recommendations will be developed with input from the West Virginia Lottery, so that the proposed improvements reflect the owner's vision for the project. Simultaneous with the development of the condition assessment, ZMM will undertake a visioning and programming process with the WV Lottery. The purpose of this process will be to develop a program of spaces for the renovated space. ZMM will then translate the program of spaces into conceptual plans of the 7th, 8th, and 9th floors. Once the investigation, programming, and conceptual design effort is complete, ZMM will prepare an estimate of the probable construction cost. The result of this detailed investigative, planning, and design process will be a report that will serve as the basis for future project decisions. This comprehensive approach ensures that all improvements are made in a manner that supports the overall vision of the facility, and will lead to a thorough and successful renovation project.

The effort of ZMM's architects and engineers will continue through the construction phase until the final completion of the project. ZMM continues to focus on quality throughout the construction phase by utilizing a dedicated construction administrator to coordinate the design team's effort throughout the construction process. This approach will improve the communication and coordination between ZMM, the WV Lottery, and the contractor, and will ultimately lead to an improved construction phase for the Lottery.

Schedule

ZMM is also qualified to provide services on projects that must be completed in an expeditious manner. The fact that we perform all of the design work in-house gives us complete control of the design schedule. Additionally, our previous experience working on the former "City Center West" building will be beneficial due to our familiarity with the building and structure. Examples of projects where ZMM met aggressive design schedules include the Erma Byrd Center in Beaver, WV and the Joint Interagency Training and Education Center (JITEC) at Camp Dawson, near Kingwood, WV (a project that was completed in association with AECOM).

Both projects were funded with a federal appropriation, and the design effort had to be compressed to make sure the funds were obligated prior to the end of the federal fiscal year. In the case of the JITEC, ZMM designed a 180,000 SF, $30M, 400 room hotel that included a lounge and breakout training areas in approximately four months. ZMM also closely coordinated the bidding process with WV State Purchasing to help maintain the project schedule. Our firm maintains a highly qualified staff of design professionals that, if ZMM is selected, are ready to immediately commence the renovations to the 7th, 8th, and 9th floors of the WV Lottery Building.

WV Lottery Building Assessment

Developed by ZMM Architects and Engineers for:
WV Lottery
February 2013

The assessment will commence with a review of any documents that are available of the existing building as well as the recent improvements. The scope of the assessment will be limited to the 7th, 8th, and 9th floors of the WV Lottery Building, as well as an overall electrical and structural assessment of the entire facility. The building envelope, including the roof anchor safety system for window cleaning, will also be investigated.

Tab 1: Building Identification and Description

- General Description
- # of Floors
- Area per Floor
- Overall Area
- Year Constructed
- Date/Time of Assessment
- Weather Conditions During Assessment
- Name of Personnel Performing the Assessment
- WV Lottery Contact Information
- List utility companies that service the facility (Gas, Water, Electric, Sanitary and Storm)

Tab 2: Executive Summary (Including a budget and prioritized list of proposed improvements)

Tab 3: WV Lottery Building Structure

- Describe the Overall Structural System
- Describe the Foundation System
- Describe the Wall/Frame Construction)
- Describe the Floor Construction and Loading
- Describe the Roof Structure Condition
- List any Structural Deficiencies
- Is the building in a seismic zone? Is the structure designed to accommodate seismic loads?

Required Structural Improvements:

Structural Budget: [ ]

Tab 4: WV Lottery Building Envelope

- Describe the Building Veneer (Skin)
- List the Number and Type of Exterior Doors and their Overall Condition

- List the Number and Type of Windows and their Overall Condition
- List the Material of the Windows
- Describe the Roofing System (Type, Age, etc.)
- Describe any Additional Exterior Construction and Deficiencies (Stairs, Canopies, Railings, etc.)
- Describe Architectural Details

Required Building Envelope Improvements:

Building Envelope Budget: [ ]

Tab 5: WV Lottery Building Life Safety

- Describe the Fire Alarm System
- Does the fire alarm system transmit to a central monitoring station of fire department?
- Describe the Adequacy of the Exit Signage and Exiting
- Describe the elevators. When were they last inspected, and do they contain the required emergency lighting, call box, and recall? Do they access all areas of the building? Do the elevators have emergency power?
- Does the facility have an automatic fire suppression system? If yes, when was it last tested? List the sprinkler valve manufacturer.
- Do any specialty fire suppression systems exist in areas utilized for record storage?
- Describe any Concerns with the Building Configuration and/or Construction (Dead-End Corridors, Exit/Stairway Construction, Atriums, Open Monumental Stairs, etc.)
- Describe the Adequacy of the Interior Emergency Lighting.
- Does the facility have exterior path of egress emergency lighting?
- Does the facility contain any systems that require redundant power supply? Describe any Back-Up Power Supplies/Generators. Does the back-up power system have excess capacity?
- Attach any Reports from the Fire Marshal.

Required Life Safety Improvements:

Life Safety Budget: [ ]

Tab 6: WV Lottery Plumbing/Sanitary Systems

- Describe the Condition of the Plumbing and Sanitary Piping
- Do water heaters have expansion tanks?
- Type of Water Closets (Tank or Flush Valve, Wall Hung or Floor Mounted)? If flush valve, list the brand of flush valve.
- Do water closets meet ADA requirements?
- Describe the Condition of the Plumbing Fixtures (# of toilets/condition, # of lavs/Condition, etc.)
- Describe the Condition of the Plumbing Vent Stacks
- Do adequate Clean-Outs Exist?

- Does the building contain any plastic non-plenum piping in return air ceiling plenums?
- List Number of Toilets and Breakdown (M/F). Does the fixture count meet the code?
- Does the facility have any water fountains?
- Do adequate janitor closets with mop sinks exist?
- Attach any reports from the health department.

Required Plumbing/ Sanitary Improvements:

Plumbing/Sanitary Budget: [ ]

Tab 7: Heating, Ventilation, and Air Conditioning

- Describe the HVAC System
- Describe the Efficiency of the HVAC System
- Is ductwork lined or wrapped?
- Is the building under a maintenance contract? If yes, please provide information.
- Do occupants receive adequate fresh air/ventilation?
- Is the system zoned and controllable? Do occupants have concerns about comfort?
- Does the system utilize a return air plenum? If yes, are cables and piping in the plenum rated?
- Does the facility utilize smoke and/or fire dampers where required?
- Are penetrations for the HVAC system fire stopped?
- Where are the outdoor units of any split unit systems located?

Required HVAC Improvements:

HVAC Budget: [ ]

Tab 8A: Electrical Power Systems

- Describe the Electrical Service and Power Distribution and Condition
- Is the electrical service overhead or underground?
- Is the service adequate?
- Is the distribution adequate?
- Is the electrical power shutdown adequate?
- Does the building require lightning protection? If yes, is lightning protection provided?
- Does the building contain non-plenum rated wiring in return air ceiling plenums.
- If the building is over two stories above the lowest exit level, does it contain non-metalic cabling (Romex)?
- Are exposed surface mounted raceways and conduit utilized in finished spaces?

Required Electrical Power Improvements:

Electrical Power Budget: [ ]

Tab 8B: Electrical Lighting Systems

- Describe the General Condition of the Interior Lighting
- Is the facility lighting adequate? (Does it meet IES recommended practice?)
- Is the facility lighting energy efficient?
- Does the facility have a lighting control system or occupancy sensors? If yes, please describe?
- Does the facility utilize outdated lamp technologies (i.e. T-12 and incandescent)?
- Is the facility wired with modular wiring? If yes, list the manufacturer.

Required Electrical Lighting Improvements:

Electrical Lighting Budget: [ ]

Tab 8C: Data/Communications Systems

- Describe the Data System
- Describe the Telephone System, is it VOIP?
- Does adequate space exist for the data and data distribution system?
- Are the data spaces adequately ventilated or air conditioned?
- Describe the Data Cabling Category and Distribution
- Are data closets used for other purposes (i.e. storage, break areas, etc.)?
- Have all data/com cabling penetrations been fire stopped?
- Is the data/com cabling plenum rated in return air ceiling plenums?
- Are data/com outlets labeled?
- Describe the Number and Location of Antennae, Dishes, Etc.

Required Data/Communication Improvements:

Data/Communication Budget: [ ]

Tab 9: Security

- Does the building contain a mass notification system?
- Does the building have an adequate secured perimeter and setbacks?
- Is the roof secure?
- Are occupants screened when entering facilities? What methods are utilized?
- Does the building utilize a card access system to secure employee areas? Do cards have ID photos?
- Does the building utilize a CCTV system? How and where is it monitored?
- Do any employees require access to a duress alarm? Who monitors the duress alarms?
- Does the facility have a security alarm system? If yes, does the alarm system transmit to a central monitoring station, 911 Center, or Sherriff's Department?
- Is the CCTV and security system plenum rated in return air ceiling plenums?

Required Security Improvements:

Security Budget: [ ]

Tab 10: WV Lottery Building Interiors

- Describe the Interior Condition of the Facility
- Describe the Flooring (Types/SF)
- Describe the Ceiling Systems (Types/SF)
- Describe the Wall Finishes
- Describe the Trim and Doors
- Are acoustics adequate?
- Describe any built-in millwork.
- ADA: Is the interior environment accessible (toilets, door pulls, elevators, etc.)?
- Are building system improvements (data cabling, fire suppression system) exposed?

Required Interior Improvements:

Interior Budget: [ ]

Tab 11: Environmental Concerns

- Has a hazardous material assessment been completed for the facility? If yes, attach.
- Describe any suspect hazardous materials (Lead paint, Asbestos, Mold, etc.).
- Are fluorescent ballasts suspected of containing PCB's?
- Do electrical service transformers contain PCB's?
- Are existing fluorescent lamps "eco friendly" low mercury lamps?
- Do building occupants get fresh air through the mechanical system or operable windows?
- Were any fuel tanks or vehicle maintenance facilities previously located on the property?

Required Environmental Improvements:

Environmental Budget: [ ]

Appendix #1: Summary of Proposed and Prioritized WV Lottery Building Improvements

Appendix #2: Budget for Proposed Improvements

Appendix #3: Documentation of Coordination with State Fire Marshal, other Regulatory Agencies

Appendix #4: Copies of Previous Reports and Photographs

History and Philosophy of ZMM

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.

Community Support

In addition to our design efforts, ZMM is supportive of institutions and organizations that contribute to the cultural and educational landscape in West Virginia.

ZMM offers financial support to several community and state-wide institutions which reflect the superior quality that we strive to achieve on each of our projects. The following organizations also impact the educational environment through their support of local artisans, performances, broadcasts, and community service:

Kanawha County Public Library

ZMM ARCHITECTS & ENGINEERS PoPS

WEST VIRGINIA PUBLIC BROADCASTING

Professional Services

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 eight LEED accredited Professionals on staff to address the needs of our clients who are interested in designing buildings that meet the US Green Building Council's standards. This continues ZMM's active implementation of sustainable design principles on our projects.

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

Pre-Design

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

Post Design

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

Design

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

West Virginia Housing Development Fund

ZMM
ARCHITECTS & ENGINEERS

LOCATION:
Charleston, WV

SIZE:
36,000 SF

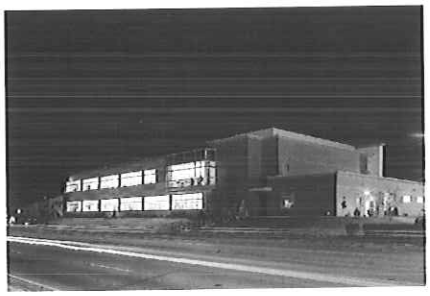
COST:
$8.5M

COMPLETION:
2011

CONTACT:
Nancy Parsons,
Senior Director
5710 MacCorkle Ave, SE
Charleston, WV 25304
304.345.6475

AWARD:
2012 AIA Honor Award
West Virginia Chapter
Excellence in Architecture

New offices for the West Virginia Housing Development Fund (WVHDF) were developed in the Kanawha City neighborhood of Charleston on a former Brownfield site. The new building sits on two acres and houses private offices and open offices for over 100 employees, an educational training room for staff and clients, staff exercise room, executive library, and boardroom.



The result is a unique contemporary design that differentiates itself from other office buildings in the neighborhood. Glass and insulated metal panels surround three sides of the building in a subtle checkerboard pattern. Red brick grounds the educational side in tradition, yet the alternating pattern adds another subtle, modern touch.

The signature entry is defined by the two-story white brick wall projecting from the primary building envelope. The lobby on the first floor and the executive director's office on the second floor are the focal points of a common corridor housing an elevator, restrooms and mechanical/electrical spaces. The interior color scheme is based on a light gray and white background. Punches of color enhance the employees break room and accent the entrance to the executive office area.

A primary goal of the new building was to create light, bright and easily accessible spaces. Private offices are located in the center spine along the length of the building. Glass office fronts and glass doors offer in daylight from exterior glazing. The combination of glass panels and sliding doors marries employee's needs for daylight and visual privacy. A high ceiling in the open office area maximizes daylight, while sunshades on the exterior control it. The interior lighting has solar sensors and automatically dims according to the natural light levels.

The result of the attention to detail is a mitigated Brownfield site that allows for plenty employee parking spaces, plus easy access for clients; an energy efficient and day light-flooded building that has increased staff well being; a clean, sophisticated design both outside and inside; and a modern addition to the city streetscape.

State Office Building #5, 10th Floor

Office of Technology

ZMM
ARCHITECTS & ENGINEERS

LOCATION:
Charleston, WV

SIZE:
22,000SF

COST:
$3.7M

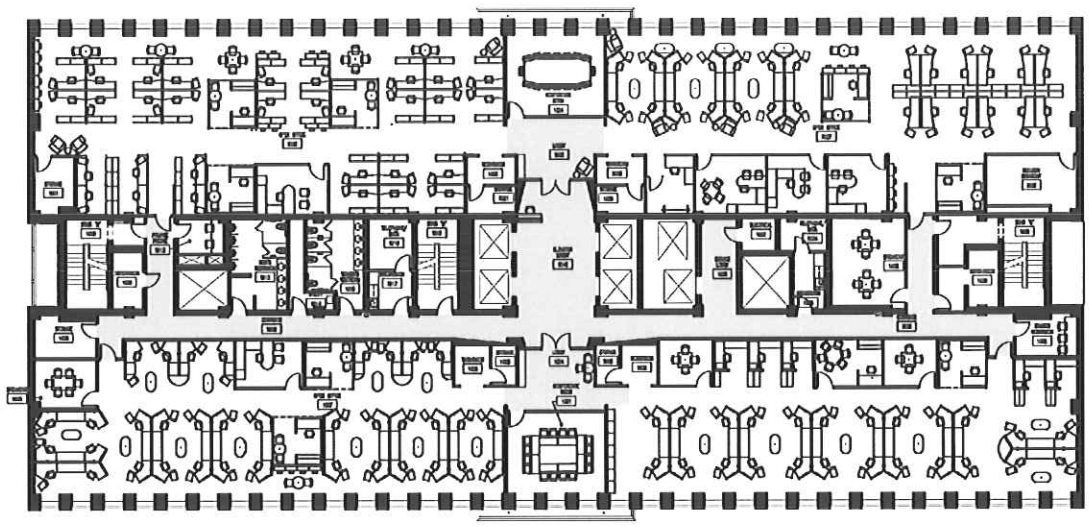
COMPLETION:
2010

CONTACT:
Mr. David Oliverio
Director
General Services
Division
1900 Kanawha Blvd. E
Charleston, WV 25305
304.558.3517

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

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

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



State Office Building #5, 10th Floor

ZMM
ARCHITECTS & ENGINEERS

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

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

Charleston Area Alliance

Small Business Incubator

ZMM
ARCHITECTS & ENGINEERS

LOCATION:
Charleston, WV

SIZE:
3,522 SF

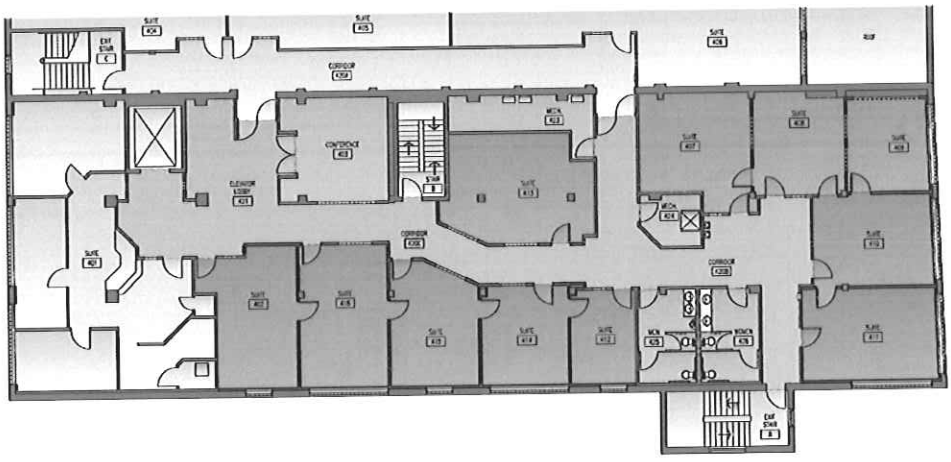
COMPLETION:
April 2012

COST:
$450,000

CONTACT:
Mr. H. Michael Aeiker
Charleston Area Alliance
1116 Smith Street
Charleston, WV 25301
304.340.4253

The expansion of the Charleston Area Alliance Small Business Incubator involves several distinct projects. The first project is the build out of 3,522 SF of space on the fourth floor of the Alliance offices at 1116 Smith Street. The build out created eight (8) additional offices for the Small Business Incubator. The second project is the design of a closed loop solar thermal hot water system. The system will supply domestic hot water for all four floors of the Charleston Area Alliance Facility. The final project is the retrofit of 170 light fixtures on the second and third floor of the facility, which involved replacing the dated T-12 fixtures with an energy efficient LED fixture. The intended outcome of the project was to increase the available incubator space without increasing energy usage or utility costs.

The newly renovated space retains many significant architectural features of the original building. Acoustical ceiling clouds were utilized in larger offices to minimize the impact of the build out, while still creating a finished office environment with good acoustical qualities. Sustainability was a key objective for the client, and were demonstrated through the use of the domestic solar hot water system, the LED lighting, a high efficiency variable refrigerant HVAC system, daylighting, low VOC paints, and carpet tiles that contained 60% recycled content.



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:
Est. Fall 2013

CONTACT:
Susan Thompson, CEO
GSBDC
210 Hale Street
Charleston, WV 25301
304.345.7722

Before

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

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

ZMM
ARCHITECTS & ENGINEERS

Girl Scouts of Black Diamond Council

Volunteer Resource Center and Girl Zone/Urban Camp

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

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

Bridgemont Community and Technical College

Davis Hall Renovation

ZMM
ARCHITECTS & ENGINEERS

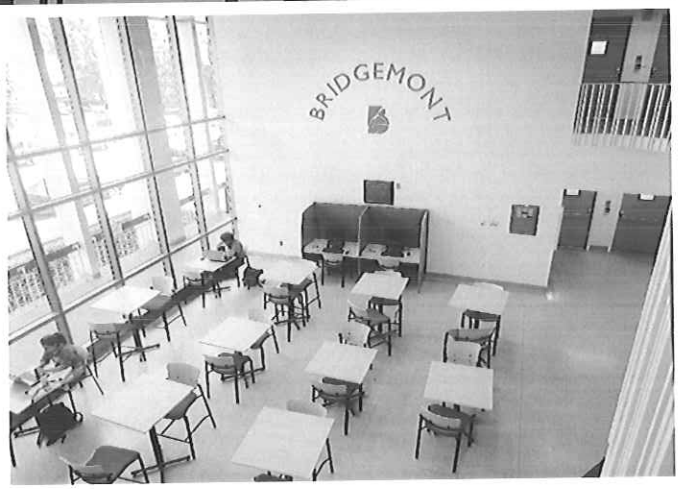
LOCATION:
Montgomery, WV

SIZE:
77,215 SF

COMPLETION:
Summer 2012

COST:
$4M

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



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

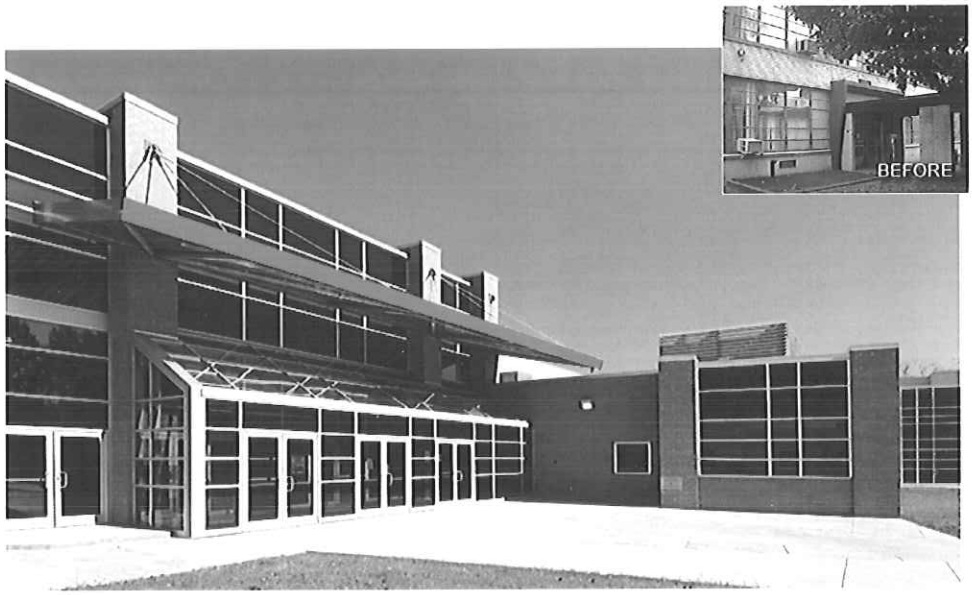
Prior to commencing the design effort, ZMM completed a thorough assessment of the facility. The assessment revealed significant life safety concerns that had not been previously identified, including the use of non-plenum rated plastic insulated wiring throughout the return air plenums, mechanical units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

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

St. Albans High School

Kanawha County Schools

ZMM
ARCHITECTS & ENGINEERS



LOCATION:
St. Albans, West Virginia

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

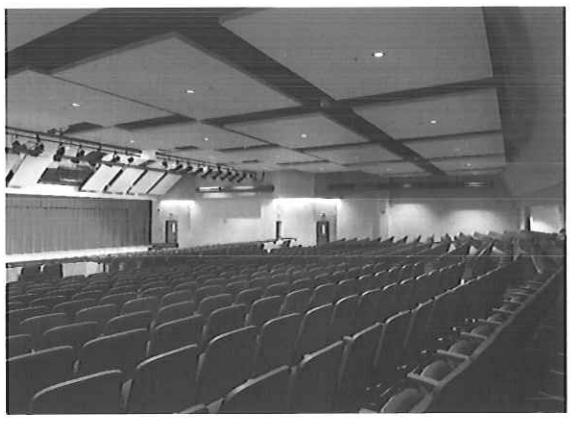
Education Design Showcase
Outstanding Building Design

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. Continued...



St. Albans High School

ZMM
ARCHITECTS & ENGINEERS

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.

Construction & Facilities Management Office

WVARNG

ZMM
ARCHITECTS & ENGINEERS

LOCATION:
Charleston, WV

SIZE:
19,935 SF

COST:
$3.5M

COMPLETION:
2008

CONTACT:
Lt. Colonel David Shafer
WVARNG
1707 Coonskin Drive
Charleston, WV 25311
304.561.6539

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

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

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

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

Wood County Justice Center

ZMM
ARCHITECTS & ENGINEERS

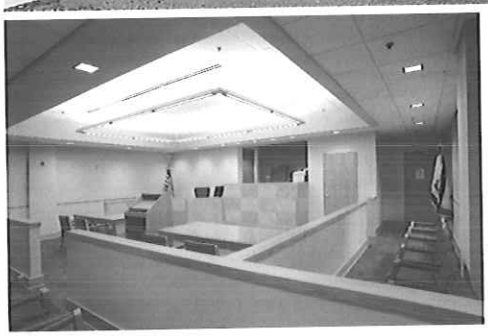
LOCATION:
Parkersburg, WV

SIZE:
32,000 SF

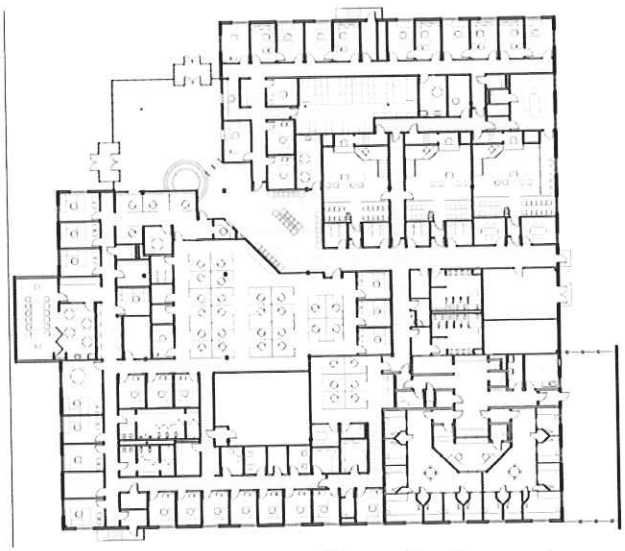
COMPLETION:
2011

PROJECT COST:
$5M

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



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



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

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

Joint Interagency Training & Education Center

WVARNG

ZMM
ARCHITECTS & ENGINEERS

LOCATION:
Kingwood, WV

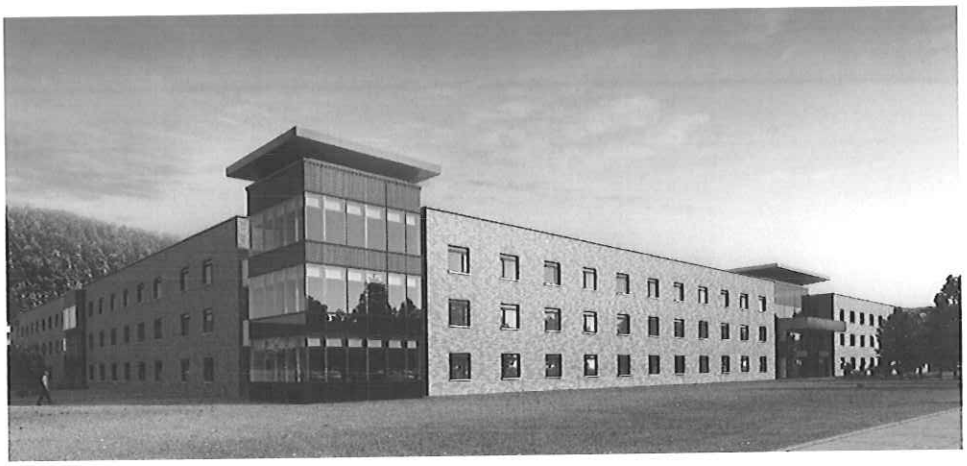
SIZE:
285,000 SF

COMPLETION:
2013

COST:
$78.4M

OWNER:
Lt. Colonel David Shafer
WVARNG
1707 Coonskin Drive
Charleston, WV 25311
304.561.6539

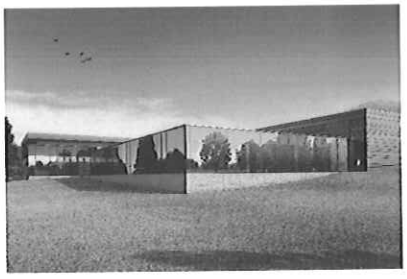
AWARD:
2011 AIA Honor Award
West Virginia Chapter
Excellence in Architecture



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

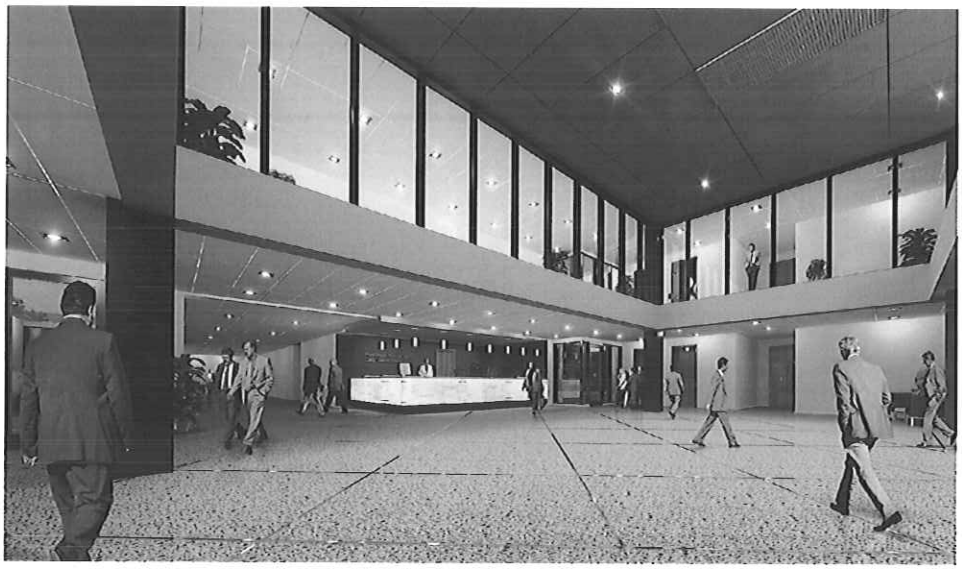
The project began with a review of the existing base master plan, followed by a revision of the master plan concept. JITEC is a training and educational facility – the vision behind the site design and updated master plan is that of a college campus atmosphere. The clients goal was to create a campus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

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



ZMM
ARCHITECTS & ENGINEERS

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.

Kanawha County Public Library

ZMM
ARCHITECTS & ENGINEERS

LOCATION:
Charleston, WV

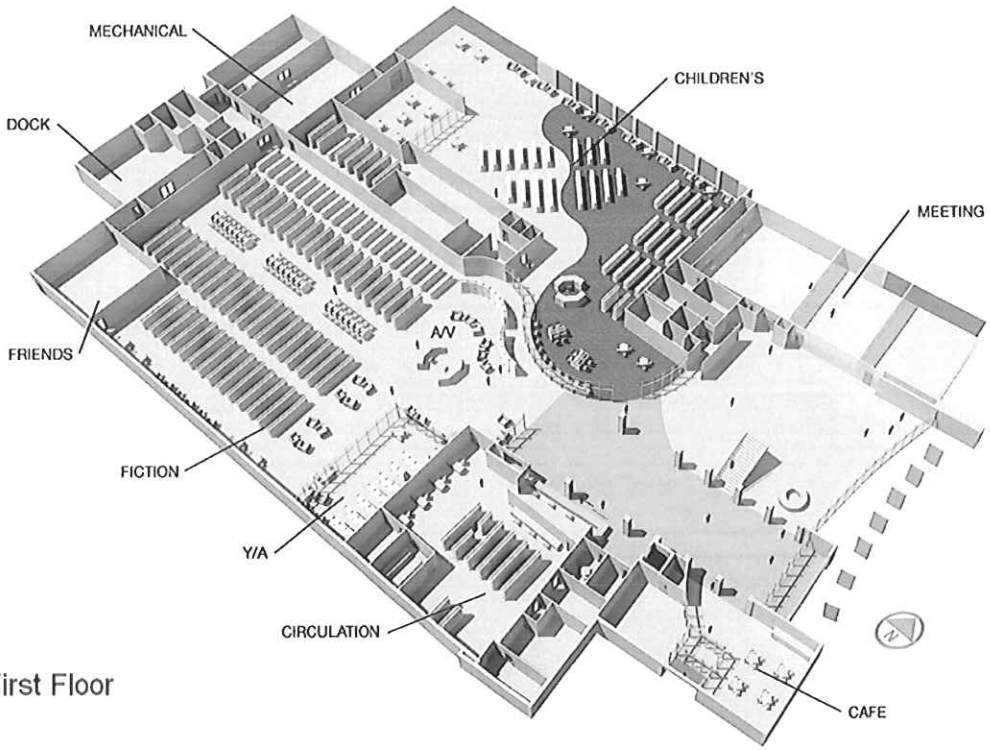
SIZE:
118,000 SF

COMPLETION:
TBD

CONTACT:
Alan Engelbert, Director
123 Capitol Street
Charleston, WV 25301
304.343.4646

The new main library will be located in an easily accessible site in downtown Charleston. The main library's relocation will help create an educational and cultural campus worthy of the Capitol City. The increased square footage of the new main library will be nearly triple that of the current facility on Capitol Street.

This presents tremendous opportunities for developing the library's collection, expanding services and providing a wide variety of meeting spaces, both formal and casual. The open, more flexible space is designed to serve as an inviting setting for exploring books, conducting research, meeting with friends and colleagues in small or large groups, and introducing children to the exciting world of books.



First Floor

Kanawha County Public Library

ZMM
ARCHITECTS & ENGINEERS

Even before entering the new main library, patrons will sense the increased openness of the facility because of its inviting exterior and surrounding property. The campus will feature well-planned parking, easy access for all, and an entrance with drive-up facilities for school buses. Once inside, patrons will find a well-lit atrium that includes an information desk, elevators and escalators to all sections of the library.

Those researching local history will welcome a new climate-controlled West Virginia room, which the current building cannot accommodate. For added convenience and comfort, the new library will feature a reading garden and café. Architects experienced in library design have used some of the latest technological advances to conserve energy and make the main library far more energy efficient than the current building

Adam R. Krason, AIA, NCARB, LEED AP

ZMM ARCHITECTS & ENGINEERS

Role
Architect, Principal

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

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

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

Project Experience

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

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

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

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

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

opportunity to implement the proposed improvements on the 10th Floor of State Office Building #5 for the Office of Technology. The improvements, 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.

West Virginia Army National Guard, Joint Interagency Education and Training Center, 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. The project is aiming for LEED Silver Certification.

Construction and Facilities Management Office Expansion, West Virginia Army National Guard, 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.

WVU at Parkersburg , Parkersburg, WV
Mr. Krason was the project manager for the Downtown Center (W.T. Grant Building). ZMM provided preliminary design services and a construction cost estimate for improvements to the building façade. Services included the development of as-built drawings, conceptual elevations, renderings, and modeling. Working closely with West Virginia University at Parkersburg ensured that the design reflected a contemporary and unified aesthetic.

Judge Black Courthouse Annex, Wood County Commission, Parkersburg, WV. Mr. Krason was responsible for the programming and design 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.

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

Awards and Acknowledgements:
AIA Honor Award (2011): WVARNG Joint Interagency Training and Education Center (JITEC)
AIA Honor Award (2011): State Office Building #5, 10th Floor Renovation
AIA Merit Award (2009): WVARNG Construction and Facilities Management Office
Organizer: Making the Business Case for Sustainability Conference, University of Charleston (2010)
Speaker: West Virginia Sustainability Summit, Discover the Real West Virginia Foundation (2010)
Speaker: Sustainable Schools West Virginia Summit, WVU (2009)
Article: The West Side Needs Structural Help, Charleston Daily Mail, January 2005

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)

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 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

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 aiming for LEED Silver Certification. The project is served by a 4 - pipe hot and chilled water system with an energy recovery ventilation system.

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

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

Bachelor of Science Mechanical Engineering, West Virginia University, 1973

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

Civic Affiliations

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

Safety; Vertical Transportation; Mechanical; Electrical; Data; Façade; Structure; and Roofing. The analysis also included a study related to potential hazardous materials in the facility.

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

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

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

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

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

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

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

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

The Boulevard at 2412, Charleston, WV. Mr. Doeffinger was on the design team for the proposed Kanawha Boulevard Condominium project. The sixty unit project, located in the East End Historic District, included a design that increased in height as it stepped back from the Kanawha River, providing the opportunity for a series of outdoor living areas, while also respecting the massing of the adjacent residences in the Historic District.

David E. Ferguson, AIA, REFP

ZMM ARCHITECTS & ENGINEERS

Role
Architect, Principal

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

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

Mr. Ferguson began his career at ZMM in 1984 working on a variety of retail, educational and military projects throughout West Virginia, Pennsylvania, Ohio, Virginia, Maryland, New York, North Carolina, South Carolina, Florida, and Washington DC. In 1996 Mr. Ferguson expanded his expertise into the Healthcare and Industrial and Corporate Office facilities and since then has led the effort at ZMM in Educational Design. Mr. Ferguson is a Recognized Educational Facility Professional (REFP) and has been involved in planning, designing and the construction of over 90 educational facilities in West Virginia. As the architect for the first "green" school building in West Virginia Mr. Ferguson has been an advocate for sustainable design and was involved starting the first US Green Building Chapter in West Virginia.

Mr. Ferguson has also participated in developing West Virginia Department of Education's Policy 6200 *Handbook on Planning School Facilities* and the West Virginia School Building Authority's *Handbook of Quality and Performance Standards.*

In addition to Mr. Ferguson's project management responsibilities, as a principal of the firm he has corporate administrative duties and serves on the Board of Directors.

Project Experience
Southside Elementary and Huntington Middle School: Mr. Ferguson led the programming and design effort on this 156,000 sq. ft. facility. This project encompasses all phases of construction; demolition, major renovation and new construction. The original historic 26,000 sq. ft. three story school building was preserved and the remaining less than adequate facility was strategically removed to accommodate

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

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

Civic Affiliations
- West Virginia Chapter, American Institute of Architects, Board Director
- American Institute of Architects, Member
- Member, Council of Educational Facility Planners International (CEFPI)
- Recognized Educational Facility Planner (REFP) by the CEFPI
- Professional Member, US Green Building Council
- High School Mentoring/Job Shadowing Program for 6 County School Systems
- WV AIA IDP Program Mentor/Advisor

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

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

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

Southern West Virginia Community College: Mr. Ferguson is the Principal-in-Charge for this new 22,000 SF Applied Technology Center. The building featured large, flexible teaching areas that can adapt as the curriculum changes for each program. The project is targeting LEED Silver Certification.

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

Hacker Valley PK-8 School: Mr. Ferguson was responsible for the programming and design effort for this facility. This 65 student, 31,000 sq. ft. school was a ground breaking facility for the county, West Virginia School Building Authority and the WV Department of Education. The project didn't fit within any standard guidelines or protocol for a new school. Mr. Ferguson was instrumental in developing new guidelines for schools of this size and grade level configurations. The design of this facility is also the recipient of the 2010 WV AIA Honor Award.

Highland Hospital: Mr. Ferguson was responsible for the programming and design effort for this 90,000 sq. ft. Psychiatric Hospital. The design of this facility creates a new lobby space that connects the existing hospital to the new 4 story structure. The new facility replaces older antiquated spaces within the existing facility and adds new patient rooms to allow the hospital the expansion of patient care. The implementation of water recycling for the laundry facility and other "green" components were used as energy saving methods that have a long term impact on the hospital operation.

Awards and Acknowledgements:

2010 WV AIA Honor Award *Hacker Valley PK-8 School*, Webster County Schools, Hacker Valley, WV

2007 WV AIA Honor Award *Lincoln County High School*, Lincoln County Schools, Hamlin, WV.

March 2006 Article, Construction Progress, Lincoln County Comprehensive High School, Lincoln County. *West Virginia Construction News Magazine*, West Virginia Contractor's Association

May 2005 Article, Building Blueprints, Science Classroom/Laboratory. *School Planning & Management Magazine*

2004 Education Design Showcase, "Project of Distinction", *School Planning & Management Magazine.* St Albans High School, St Albans West Virginia, Kanawha County Schools.

2004 Impact on Learning Awards, "Effective Transformation", *School Planning & Management Magazine/CEFPI.* St. Albans High School, St. Albans West Virginia, Kanawha County Schools.

Rodney Pauley, AIA

ZMM ARCHITECTS & ENGINEERS

Role
Project Manager

Professional Registrations
Registered Architect (WV, GA)

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

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

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

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. 2000, Project Architect, VA Firm

Civic Affiliations
- American Institute of Architects, Member

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

Edgewood Elementary School, Charleston, WV. Mr. Pauley is the project manager for the design team that is currently developing a new 60,000 SF 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.

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.

WV Division of Juvenile Service (Davis Center Renovations), Davis, WV. Mr. Pauley is the project manager for a design team that is currently preparing construction documents for the renovation to an existing juvenile corrections campus for women. The project scope includes the demolition of two buildings, the interior renovation of the 6,800 SF education building, and a major reconstruction to the 10,000 SF gymnasium which includes two major additions for dining and living facilities. An entrance and parking area will be reconfigured to provide additional spaces, a sally port and perimeter security fencing.

Other Project Experience

One Federal Place, Birmingham, AL. Mr. Pauley was the project architect responsible for design, construction documents and construction administration for the 12-story, 466,600 SF speculative office building with attached 5-story, 520-car parking deck. The base of the office tower and parking deck, which are located in the heart of downtown Birmingham, are faced in granite to match the surrounding buildings. The tower is faced with architectural precast concrete panels and an insulated glass curtainwall system. The entrance lobby is highlighted by custom wood paneling and a highly-detailed granite floor.

North Georgia Technical College for GA Department of Technical and Adult Education Clarkesville, GA. Mr. Pauley was the project manager for the a major campus renovation which included the demolition of an old automotive classroom building, the renovation of Mobley Hall, the existing administration building, and the construction of two new education buildings, the Visual Technology Center and the Transportation Center.

- Mobley Hall, the main campus entry building, was refaced with new brick veneer and a new gable roof with entry feature was constructed covered in standing seam metal roofing.
- The Visual Technology Center is a 2-story, 28,000 SF state-of-the-art, photography, media and print building that is sited adjacent to existing educational buildings to create a formal "quad" within the campus. It contains a commercial print lab, a large photography shooting room, digital production rooms, a video production studio and is highlighted by a 2-story media gallery with glass façade open to the quad.
- The Transportation Center is a 37,000 SF educational building that is highlighted by three, high-bay spaces with clerestory windows opening into pitched standing seam metal roofs. These bays contain educational space for conducting repair and maintenance for automobiles, boats, large trucks and commercial earth-moving equipment.

John Pruett, PE, LEED AP

ZMM ARCHITECTS & ENGINEERS

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-registered 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 is 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 for the LEED-registered school. 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 is 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.

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.

Stephen Hedrick, PE

ZMM
ARCHITECTS & ENGINEERS

Role
Structural Engineer

Professional Registrations
Professional Engineer (WV)

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

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

Project Experience

Bridgemont Community and Technical College (Davis Hall, Building 704), Montgomery, WV. Mr. Hedrick is responsible for the structural design for a design team that is currently preparing construction documents for the renovation to an existing 7-story, 77,215 SF educational building. The project scope includes remedying several engineering and life safety deficiencies, as well as architectural improvements to the building envelope.

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

Huntington East Middle School, Huntington, WV. Mr. Hedrick was responsible for the overall structural design of the single story school building. The design included masonry wall,

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

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

Employment History
2007 - Present, Structural Engineer, ZMM
2003 - 2007, Structural Engineer, McCall Engineering, Inc.

Civic Affiliations
- American Institute of Steel Construction, Member

metal panel walls and storefront glazing in order to allow additional light for the LEED designed project.

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

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

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

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

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

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

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

Scot Casdorph, PE

ZMM ARCHITECTS & ENGINEERS

Role
Electrical Engineer

Professional Registrations
Professional Engineer (WV)

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

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

Project Experience

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

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

West Virginia Research, Education, and Technology – Building 704 WV. Mr. Casdorph is the electrical engineer for building 704 and responsible for electrical power and lighting distribution. Building 704 had previously been utilized as a campus maintenance facility by Union Carbide and DOW Chemical. Bridgemont began utilizing the facilities for instruction in the Spring of 2011.

Education
Bachelor of Science, West Virginia Institute of Technology, 1995

Employment History
2000 - Present, Electrical Engineer, ZMM
1995 - 2000 Electrical Controls Systems Manager, WV Engineering Firm

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

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

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

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

Glen Jean Armed Forces Reserve Center, Glen Jean, WV. Mr. Casdorph was responsible for the electrical design of the 102,000 SF military training facility which houses the Armed Forces Reserve Center (AFRC), Military Entrance Processing Station (MEPS), and an Organizational Maintenance Shop (OMS). The AFRC contains the administrative and training space for the 77th Brigade Troop Command, the 1863rd Transportation Company, and the 150th Armored Regiment Company. The MEPS houses their administrative, medical, headquarters, testing and storage functions at the facility. A comprehensive 8,500 SF OMS vehicle maintenance shop provides space for six large service workbays for maintaining the military fleet.

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

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

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

Michael D. Abernethy, LC, IESNA

ZMM ARCHITECTS & ENGINEERS

Role
Lighting Designer and Electrical Technician

Professional Registrations
Master Electrician – WV License #M02891
Lighting Certification with the National Council on Qualification for Lighting Professionals (NCQLP)

Mr. Abernethy is responsible for overseeing the design of the lighting and electrical systems, ensuring that the electrical systems not only meet the program requirements, but also meet the long-term needs of the owner. He performs lighting, electrical and low voltage systems design, electrical load calculations and specifies the type of systems to be incorporated into the building. He coordinates with the other disciplines in order to integrate the Lighting and Electrical systems into the building. Mr. Abernethy has participated on several LEED registered projects; one of his key contributions to these projects is designing lighting systems that comply with energy codes and LEED requirements.

Mr. Abernethy began his career in engineering with ZMM in 1968. From 1970 through 1971 he was a construction drafting specialist and model maker in the US Army and after his honorable discharge in 1972 he became a staff engineering designer for FMC Inorganic Chemicals Corporation. In 1973 Mr. Abernethy returned to ZMM. He has a broad range of experience in the design and construction of commercial lighting and electrical systems, including K-12 schools, higher education facilities, industrial, manufacturing, military, commercial offices, malls and large retail facilities. Mr. Abernethy also has five years of experience as the office manager, estimator and purchasing agent for a highway lighting and traffic signal construction company.

Project Experience

WV State Capitol Buildings #5, 6, & 7 - Electrical Switchgear up-grades, Charleston, WV. Mr. Abernethy was the project manager, designer and field investigator for a large medium and low voltage electrical switchgear emergency replacement which was accomplished over a long 2009 New Year's weekend.

Joint Interagency Training & Education Center, Camp Dawson, WV. Mr. Abernethy was responsible for the interior and exterior lighting design of both the billeting expansion and the operations training center. The project utilizes less than 0.8 watts/SF for interior lighting, which has helped reduce energy

Education
Associate in Science Drafting and Design Engineering Technology, West Virginia Institute of Technology, Montgomery, WV, 1997

Illuminating Engineering Society of North America (IESNA), Certificate of Technical Knowledge (TKE), 1996

Employment History
1992 - Present, Lighting Designer and Electrical Technician, ZMM
1988 - 1992, Estimator and Purchasing Agent, WV Signal and Light
1973 - 1988, Lighting and Electrical Designer, ZMM
1972 - 1973, Draftsman and Designer, FMC Inorganic Chemicals Division

Civic Affiliations
- Illuminating Engineering Society of North America – 15 Yr. Member
- Elder and Session Member – First Presbyterian Church, Charleston, WV

consumption on the project by 40% compared to a baseline analysis.

Wood County Justice Center, Parkersburg, WV.
Mr. Abernethy is responsible for the lighting design electrical work for the Wood County chose an existing building in downtown Parkersburg to renovate for its Magistrate Courts, Sheriff's Department and Holding Center.

Bridgemont Community and Technical College Davis Hall Renovation, Montgomery, WV. Mr. Abernethy was in charge for the interior lighting design on the Davis Hall building renovations. The project scope included remedying several life safety deficiencies, as well as improvements to the building envelope.

Judge Black Courthouse Annex, Wood County Commission, Parkersburg, WV. Mr. Abernethy was responsible for lighting designs and electrical work on this annex renovation. 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

Tucker County Courthouse Annex, Parsons, WV.
Mr. Abernethy is responsible for electrical and lighting designs 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.

Edgewood Elementary School, Charleston, WV. Mr. Abernethy is responsible for the electrical and lighting design for this new school. 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.

St. Albans High School, St. Albans, WV. Mr. Abernethy was responsible for the initial electrical survey to determine the extent of demolition prior to reconstructing the school. As the lighting and electrical designer, he was responsible for ZMM receiving an IESNA Sectional Award for the building lighting design.

Lincoln County Comprehensive High School, Hamlin, WV. Mr. Abernethy performed the lighting and electrical design for this award winning ZMM project. The facility is a comprehensive school containing high school classes, vocational education, community technical college classes and a community health clinic.

NGK Oxygen Sensor and Spark Plugs Plants, Sissonville, WV. Mr. Abernethy has been the chief lighting and electrical designer for several projects for NGK. He was the designer for the initial Oxygen Sensor Plant and subsequent up-grades as well as the new Spark Plugs Plant and its continuing up-grades.

Jill Watkins, NCIDQ, LEED AP BD&C

ZMM ARCHITECTS & ENGINEERS

Role
Interior Designer/Sustainability Coordinator

Professional Registrations
NCIDQ Certification
LEED Accredited Professional, Building Design & Construction

Ms. Watkins is ZMM's interior designer and sustainability coordinator. After earning a BS in Interior Design from the University of Tennessee, Ms. Watkins lived in Cleveland and Boston for 13 years before coming back home to Charleston in 2008. During that time she worked on a wide variety of commercial interiors projects, and nurtured a passion for sustainable design.

She was one of the founding members of the Cleveland Green Building Coalition; interior designer and sustainability coordinator for the Federal Courthouse in Youngstown Ohio, which was the first courthouse in the country and the first building in Ohio to become LEED Certified; she was interior designer and sustainability coordinator for Cubellis' corporate headquarters in Boston, which is now LEED for Commercial Interiors Gold Certified; Ms. Watkins led the green effort that has since become part of Procter & Gamble's green building standards; she was Chapter President of the International Interior Design Association in Ohio for 4 years; and is currently involved with all of ZMM's LEED projects and several green building outreach efforts on behalf of the firm.

Project Experience

Bridgemont Community and Technical College Davis Hall Renovation, Montgomery, WV. Ms. Watkins is responsible for the interior design efforts to the Davis Hall renovations. She is also responsible for interior finishes and furniture selections.

Huntington East Middle School, Huntington, WV.
Targeted for LEED for Schools 2009 Silver Certification. As LEED Administrator, Ms. Watkins assisted in coordinating design decisions to maximize LEED points and overall operational savings for the client. She was also responsible for interior color selections and finish plans.

Wood County Justice Center, Parkersburg, WV.
Wood County chose an existing building in downtown Parkersburg to renovate for its Magistrate Courts, Sheriff's Department and Holding Center, and Ms. Watkins was responsible for programming, space planning, coordination with consultants, researching multiple standards and codes, interior

Education
Bachelor of Science in Interior Design, The University of Tennessee, 1993

Employment History
2008 - Present, Interior Designer/Sustainability Coordinator, ZMM
2005 - 2007, Project Designer, Boston Architecture/Engineering Firm
1995 - 2005, Interior Designer, Various Cleveland Architecture/Engineering Firms

Civic Affiliations
- Bridgemont Sustainability Institute Advisory Council, Member
- FestivALL Steering Committee, Member

finish selections, reflected ceiling plans and furniture selections. This building is LEED-Silver certified.

West Virginia Housing Development Fund Office, Charleston, WV. Ms. Watkins was responsible for programming, interior elevations and details, lighting design, reflected ceiling plans and furniture and finish selections for this new 30,000 square foot office building.

West Virginia Army National Guard, Joint Interagency Training & Education Center, Camp Dawson, WV. Targeted for LEED for New Construction v2.2 Silver Certification.
For this multi-faceted and complex project, Ms. Watkins assisted in coordinating interior design for the entire project, and led the interiors effort for the Billeting (hotel) building. Jill also played a leadership role in the LEED process as co-LEED Administrator and was instrumental in the team achieving several LEED credits. She was responsible for interior finish selections, finish plans, reflected ceiling plans, interior elevations, custom casework design and interior details.

Tucker County Courthouse Annex, Parsons, WV.
Ms. Watkins is responsible for the interior design and finishes 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.

Jackson County Armed Forces Reserve Center, Millwood, WV.
Jill worked closely with ZMM architects and engineers to fully develop the interiors package. Primary focus occurs in the main lobby, where coordination of exterior and interior finishes, lighting, and ceiling design was critical. In the Assembly/Drill Hall, Jill coordinated the interior acoustic requirements with finishes and architectural elements to create a unique, flexible space for many types of uses.

Morgantown Readiness Center, Morgantown, WV.
Targeted for LEED for New Construction v2.2 Silver Certification.
Jill worked alongside ZMM architects and engineers to fully develop the interiors for this multi-functional building that houses offices and performance facilities for the band, as well as traditional readiness center functions. Design of the main gallery space was foremost, where coordination of durable interior finishes, lighting, and ceiling design was important. In the Drill Hall and Auditorium, Jill coordinated the interior acoustic requirements with finishes and architectural elements to create a stage area, performance space, and drill hall that will seamlessly function in a variety of ways. Jill is LEED Administrator for the project.

Other Firm Experience:
Procter & Gamble Gillette Corporate Headquarters, Boston, MA; to meet Boston Green Building Standards
Cubellis Corporate Headquarters, Boston, MA; LEED for Commercial Interiors Gold Certified
University of Akron Arts & Sciences Classroom Building, Akron, OH
University of Akron Student Affairs Building [programming], Akron, OH
Nathaniel R. Jones Federal Building and U.S. Courthouse, Youngstown, OH; LEED Certified
Beachwood Middle School, Beachwood, OH
Cleveland State University Library [schematic design], Cleveland, OH

Awards and Acknowledgements:
President, Ohio/Kentucky Chapter of the International Interior Design Association
Advisory Board Member, Cleveland Green Building Association
Vice President of Membership & Communication, Coalition of Interior Designers for Legislation in Ohio

ZMM
ARCHITECTS & ENGINEERS

Award Winning Design

2012

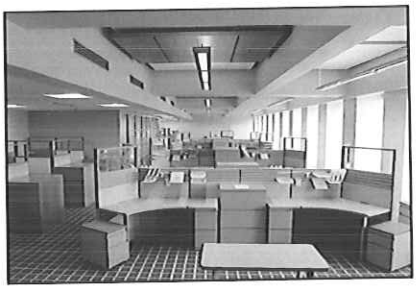
WV Housing Development Fund
2012 - Honor Award
"Excellence in Architecture"
AIA West Virginia Chapter

2011

Southside Elementary/
Huntington Middle School
2011 - Honor Award
"Historical Preservation"
AIA West Virginia Chapter

2011

Joint Interagency Training
& Education Center (JITEC)
2011 - Honor Award
"Excellence in Architecture"
AIA West Virginia Chapter



2011

State Office Building #5, 10th Floor
Office of Technology
2011 - Merit Award
"Architecture in Interiors"
AIA West Virginia Chapter

2010

Hacker Valley Pk-8 School
2010 - Honor Award
"Excellence in Architecture"
AIA West Virginia Chapter

2009

Construction & Facilities
Management Office (CFMO)
2009 - Merit Award
"Excellence in Architecture"
AIA West Virginia Chapter

2008

Erma Byrd Center
2008 - Honor Award
"Excellence in Architecture"
AIA West Virginia Chapter

2007

Lincoln County High School
2007 - Honor Award
"Excellence in Architecture"
AIA West Virginia Chapter

2006

Gene Spadaro Juvenile Center
2006 - Merit Award
"Excellence in Architecture"
AIA West Virginia Chapter

Client References

Chuck Lawrence, Director
Department of Administration
Real Estate Division
1409 Greenbrier Street
Charleston, WV 25311
304.558.4331

Susan Thompson, CEO
Girl Scouts of Black Diamond Council
210 Hale Street
Charleston, WV 25301
304.345.7722

LTC David Shafer
Construction Facilities Management Office
WV Army National Guard
1707 Coonskin Drive
Charleston, WV 25311
304.561.6539

Dr. Jo Harris, President
Bridgemont Community & Technical College
619 2nd Avenue
Montgomery, WV 25136
304.734.6600

Dr. Ron Duerring, Superintendent
Kanawha County Schools
200 Elizabeth Street
Charleston, WV 25311
304.348.7732

Michael Aeiker, VP Real Estate Services
Charleston Area Alliance
1116 Smith Street
Charleston, WV 25301
304.340.4253

Pat McGivern, Owner
Real Estate Resources
500 Virginia Street, E. Suite 950
Charleston, WV 25301
304.345.9348

Ed Maier, Chairman (Retired)
General Corporation
Station Place
350 MacCorkle Avenue, SE
Charleston, WV 25314
304.343.2201

Client Testimonials

Major General Alan Tackett
Retired Adjutant General – West Virginia National Guard
Description: Testimonial / ZMM Architects & Engineers

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

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

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

Maestro Grant Cooper
Artistic Director and Conductor West Virginia Symphony Orchestra
Description: Partnership with the West Virginia Symphony & ZMM

"One of the joys of being in West Virginia is discovering the incredible commitment to quality that many institutions here have, and we have been able to partner with ZMM an incredible architectural and engineering firm based here in Charleston, which shares our commitment to quality. We believe that quality is the way to the future. It is the way that we see what is possible, with our people, with our resources, and indeed we are going to build together a brighter future for everybody by these partnerships."

Videos of testimonials are available at www.zmm.com

RFQ No. LOT502

STATE OF WEST VIRGINIA
Purchasing Division

PURCHASING AFFIDAVIT

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

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

DEFINITIONS:

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

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

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

Authorized Signature: [signature] Date: February 27, 2013

State of West Virginia

County of Kanawha, to-wit:

Taken, subscribed, and sworn to before me this 27th day of February, 2013

My Commission expires 10-6, 2018.

AFFIX SEAL HERE

NOTARY PUBLIC Lisa E. Bowles

OFFICIAL SEAL
STATE OF WEST VIRGINIA
NOTARY PUBLIC
Lisa E. Bowles
ZMM, Inc.
222 Lee St., W.
Charleston, WV 25302
My Commission Expires October 6, 2018

CERTIFICATION AND SIGNATURE PAGE

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

ZMM, INC.
(Company)

AO RK
(Authorized Signature)

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

304.342.0159 304.345.8144
(Phone Number) (Fax Number)

27-FEB.2013
(Date)

ADDENDUM ACKNOWLEDGEMENT FORM

SOLICITATION NO.: LOT502

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)

[ ] 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.
Company

AQ RK
Authorized Signature

27. FEB. 2013
Date

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