ZMM

ARCHITECTS & ENGINEERS

Request for Qualifications:

West Virginia Division of Natural Resources

Chief Logan Lodge Cabin Project and System Wide Picnic Shelter Project

RFQ# DNR1600000003

November 10, 2015

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

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

Proc Folder: 146145

Doc Description: AE Services for Chief Logan Cabins and Picnic Shelters

Proc Type: Central Contract - Fixed Amt

Date Issued	Solicitation Closes	Solicitation No	Version
2015-09-16	2015-11-10 13:30:00	CEOI 0310 DNR1600000003	1

BID RECEIVING LOCATION

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

VENDOR

Vendor Name, Address and Telephone Number:

FOR INFORMATION CONTACT THE BUYER

Guy Nisbet
(304) 558-2596
guy.l.nisbet@wv.gov

Signature X [signature] FEIN # 55-0676608 DATE 06-Nov-2015

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

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

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

Proc Folder: 146145

Doc Description: Addendum; A&E SVC's Chief Logan Cabins and Picnic Shelters

Proc Type: Central Contract - Fixed Amt

Date Issued	Solicitation Closes	Solicitation No	Version
2015-10-21	2015-11-10 13:30:00	CEOI 0310 DNR1600000003	2

BID RECEIVING LOCATION

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

VENDOR

Vendor Name, Address and Telephone Number:

FOR INFORMATION CONTACT THE BUYER

Guy Nisbet
(304) 558-2596
guy.l.nisbet@wv.gov

Signature X AL R K **FEIN #** 55-0676608 **DATE** 10-NOV-2015

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FORM ID : WV-PRC-CEOI-001

ADDENDUM ACKNOWLEDGEMENT FORM
SOLICITATION NO.:

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

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

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

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

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

ZMM, Inc.
Company

Authorized Signature

06-NOV-2015
Date

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

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.

Authorized Signature: [signature] Date: 06 · NOV · 2015

State of West Virginia

County of Kanawha, to-wit:

Taken, subscribed, and sworn to before me this 6th day of November, 2015.

My Commission expires 10-6-, 2018.

AFFIX SEAL HERE

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

NOTARY PUBLIC Lisa E. Bowles

CERTIFICATIONAND SIGNATURE PAGE

By signing below, or submitting documentation through wvOASIS, 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, offer or proposal for review and consideration; that I am authorized by the vendor to execute and submit this bid, offer, or proposal, or any documents related thereto on vendor's behalf; that I am authorized to bind the vendor in a contractual relationship; and that to the best of my knowledge, the vendor has properly registered with any State agency that may require registration.

ZMM, INC.
(Company)

ADAM R. KRASON, PRINCIPAL
(Authorized Signature) (Representative Name, Title)

304.342.0159 ; 304.345.8144 06 · NOV · 2015
(Phone Number) (Fax Number) (Date)

ZMM
ARCHITECTS & ENGINEERS

November 9, 2015

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

Subject: West Virginia Division of Natural Resources –
Chief Logan Lodge Cabin Project and System Wide Picnic Shelter Project

Dear Mr. Nisbet:

ZMM Architects and Engineers is pleased to submit the attached information to demonstrate our experience and our qualifications to provide professional architectural and engineering services for the Chief Logan Lodge Cabin Project and Picnic Shelter Projects. Established in 1959, ZMM is a Charleston based, full service A/E firm, and is noted for design excellence and client focus. Our team for this project includes E.L. Robinson Engineering (ELR), a diversified civil engineering and planning firm with a staff of over 100 full-time, experienced professionals and support personnel located in seven offices throughout West Virginia, Ohio, and Kentucky. ZMM and ELR recently collaborated on the Beech Fork Lodge project, as well as a new Matewan Amphitheater. Teamwork is the key to design and construction process, and a commitment to quality links the members of our proposed design team.

Our team possesses the project background and knowledge, residential design experience, WVDNR experience, and project approach to ensure the successful delivery of this project for the West Virginia Division of Natural Resources. Additionally, ZMM/ELR's demonstrated success in providing design and construction phase services on projects throughout West Virginia makes us the right partner for the WVDNR for this engagement, which includes the construction of picnic shelters throughout the state. Additional qualifications of our team include:

- **Experience.** ZMM has been providing design services throughout West Virginia for fifty-five years. This experience includes the design of various projects for the WVDNR, most recently on the proposed lodge at Beech Fork State Park. ZMM also has worked on a significant number of recent residential (single and multi-unit) projects including:

  Beech Fork State Park (Unbuilt)
  The Retreat at Glade Springs
  Joint Interagency Training and Education Center, Camp Dawson (360 Rooms)
  Regional Training Institute, Camp Dawson (189 Rooms)
  Private Residence Parkersburg, WV
  Private Residence Wild Rock Development, Fayette County, WV (Unbuilt)
  The Boulevard at 2412 Charleston, WV (Unbuilt)
  Private Residence, Marietta, Ohio

- **Quality.** Our team has a history of providing high quality design services. Recent award winning experience includes the Edgewood Elementary School, the CFMO Expansion for the West Virginia Army National Guard, the West Virginia Housing Development Fund, as well as new Girl Scout of Black Diamond Council Volunteer Resource Center. All four projects were honored with statewide

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design awards by the American Institute of Architects West Virginia Chapter. ***In fact, ZMM's commitment to design quality has been recognized by the American Institute of Architects West Virginia Chapter with fourteen design awards in the last ten years – an achievement unrivaled in West Virginia.***

- **Commitment.** ZMM has been working with the West Virginia DNR for nearly half a century. Our team understands the importance that West Virginia State Parks and Forests serve as both an economic development engine, and as a source of civic pride. It is with this understanding that we commit to undertaking these projects with the intent of delivering solutions that will enhance both the parks and the quality of life for our neighbors and visitors.

Thank you for taking the time to review the attached proposal 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 websites at www.zmm.com and www.elrobinsonengineering.com to see the full range of projects that we have designed, and to learn about working with us from a client's perspective. We appreciate your consideration for this important assignment. Please let me know if you have any questions or concerns regarding our proposal.

Respectfully submitted,
ZMM, Inc.

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

222 Lee Street, West • Charleston, West Virginia 25302
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ZMM
ARCHITECTS & ENGINEERS

E.L. ROBINSON
ENGINEERING

Firm Profile

ZMM
ARCHITECTS & ENGINEERS

LOCATION:
222 Lee Street, West
Charleston, WV

CONTACT:
Phone 304.342.0159
Fax 304.345.8144
www.zmm.com

History of ZMM

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.

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

Advantages of an integrated Design Approach:

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

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

Services

Pre-Design

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

Design

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

Post Design

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

Additional Award Winning Design

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

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

2010
AIA West Virginia Chapter: Honor Award
Excellence in Architecture
Hacker Valley PK-8 School
Hacker Valley, West Virginia

2009
AIA West Virginia Chapter: Merit Award
Excellence in Architecture
Construction & Facilities Management Office (CFMO)
Charleston, West Virginia

2008
AIA West Virginia Chapter: Honor Award
Excellence in Architecture
Erma Byrd Center
Beaver, West Virginia

2007
AIA West Virginia Chapter: Honor Award
Excellence in Architecture
Lincoln County High School
Hamlin, West Virginia

2006
AIA West Virginia Chapter: Merit Award
Excellence in Architecture
Gene Spadaro Juvenile Center
Mt. Hope, West Virginia

Award Winning Design

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2015

AIA West Virginia Chapter: Honor Award
Achievement in Architecture in Sustainable Design
Edgewood Elementary School
Charleston, West Virginia

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

2014

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

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

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

2012

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

2011

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

E.L. ROBINSON
ENGINEERING

LOCATION:
222 Lee Street, West
Charleston, WV

CONTACT:
Phone 304.342.0159
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www.zmm.com

History of E.L. Robinson

E.L. Robinson is a multi-disciplined engineering /planning firm with a staff of over 125 full -time professionals and support personnel located in seven offices throughout West Virginia (Charleston corporate office, Beckley and Chapmanville), Kentucky, and Ohio. Over the last 30 years, E.L. Robinson has grown to one of the largest firms in the region, offering a diverse scope of services. Since 1978, E.L. Robinson has provided a full range of quality engineering services, from planning and analysis to design and implementation Named for its founder and president, Edward L. Robinson, P.E., P.S., the firm has based its success on a commitment to quality projects with superior client service. Finding new and creative ways to say yes to challenges has brought the firm's vision of excellence into reality. Along with this "yes, we can do it" attitude, the firm has grown to understand the ingredients of a professional service firm include not only brick and mortar, but also leading edge technology and a talented, motivated staff that is continually growing and advancing their skills.

This dedication rewarded ELR with being named one of the **Engineering News Record's** top 500 engineering firms in the country. The use of technology has allowed the firm to expand engineering capabilities and make use of new resources such as satellite imagery and digital mapping. In addition to the use of technology, E.L. Robinson also continues to strive to invent new and more effective ways to serve our clients. One of these ways is to provide a thorough pre-analysis of every project, saving the client time, money, and legal exposure. When the client is educated on every phase of the job and every challenge, the reputation of the firm grows stronger and attracts business from a larger marketplace. E.L. Robinson has been providing its clients with quality products and superior service since 1978. Our staff combines state-of-the-art technology, experienced professionals, and innovative methods to help our clients meet their challenges.

Services

Transportation
Infrastructure
Bridge Design
Structural Engineering
Geotechnical Engineering
Environmental Engineering
Site Development
Right-of-Way Services
Construction Administration/Observation
Surveying/Global Positioning
Landscape Architecture
Oil and Natural Gas Systems Development

Chief Logan Lodge Cabin Project and System Wide Picnic Shelter Project

Approach and Methodology for Meeting Goals and Objectives
Background/History
The Request for Expression of Interest indicates that the State of West Virginia Division of Natural Resources intends to build four bedroom and four and one half bath cabins at Chief Logan Lodge. The bedrooms will be keyed separately, with a common key for the entrance into the shared public areas. ZMM designed similar units at the Regional Training Institute (now the JITEC) at Camp Dawson.

The second portion of the project is a system wide picnic shelter project. The shelters will be constructed at the following locations:

- Chief Logan Lodge
- Twin Falls Resort State Park
- Pipestem Resort State Park
- Babcock State Park
- Bluestone State Park
- North Bend State Park
- Kanawha State Forest
- Blackwater Falls State Park
- Tomlinson Run State Park
- Tygart Lake State Park

The proposed picnic shelters may include restroom facilities, a small kitchen, and a fire ring. ZMM and EL Robinson have provided design services at many of the parks listed above, and ZMM also recently completed a similar project at the Jackson County Armed Forces Reserve Center, where the West Virginia Army National Guard constructed a picnic shelter with adjacent restrooms for the Order of the Eastern Star as part of the agreement for the property for the new AFRC.

Qualifications
ZMM has a significant amount of recent residential (both single and multiple unit) design experience that our team will utilize to ensure the quality of the proposed projects. This experience includes:

- Beech Fork State Park (Unbuilt)
- The Retreat at Glade Springs
- Joint Interagency Training and Education Center, Camp Dawson (360 Rooms)
- Regional Training Institute, Camp Dawson (189 Rooms)
- Private Residence Parkersburg, WV
- Private Residence Wild Rock Development, Fayette County, WV (Unbuilt)
- The Boulevard at 2412 Charleston, WV (Unbuilt)
- Private Residence, Marietta, Ohio

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ZMM Architects and Engineers and EL Robinson also have a history of working together on both residential projects (Beech Fork State Park) and projects similar in scope to the picnic shelter (Matewan Amphitheater). Our shared commitment to design quality links our team.

Project Communication

During the design phase Adam Krason (ZMM) and Jeff Nelsen (EL Robinson) would serve as the primary contacts for the design team. These key team members as well as all primary WVDNR contacts would be included on all communication to facilitate an open discussion throughout the projects – in a manner that allows the DNR to remain actively involved in all design decisions. All correspondence will be copied to this core group. As the project progresses regular bi-weekly meetings will be held to review investigation/design progress, outstanding issues, as well as any regulatory or budget concerns. Meeting minutes will be produces to document discussion items, decisions, and responsibility for follow-up. Our team's recent experience working with the WVDNR on the proposed Lodge at Beech Fork will help facilitate this open communication.

During the construction phase Glenn Savage will coordinate the effort of the design team. All submittals, pay applications, and RFI's will be logged and tracked by Lee Turley. Ms. Turley will update the entire project team (WVDNR, ZMM, and Contractor) weekly regarding outstanding items.

Budget Control

Our team has been providing professional design services in West Virginia for fifty-five years. Over this time we have developed a thorough understanding of the various construction markets and associated bidding regions that exist throughout West Virginia – which is important since the picnic shelters will be constructed at various locations throughout the state. Our team for this project will include Win Strock, a former contractor that regularly provides independent estimates to ZMM. Mr. Strock and ZMM have successfully collaborated on the following projects:

- Beech Fork Lodge
- Brooks Manor Addition and Renovations
- Edgewood Elementary School
- Ripley Readiness Center
- Logan-Mingo Readiness Center
- Morgantown Readiness Center
- State Police Information Services Center
- State Office Building 5 & 6 Renovations – Various Projects

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The design team, with the assistance of Mr. Strock will evaluate the projected cost at the end of each phase, confirming the estimate with recent experience and historical bidding data. Recent experience demonstrating our ability to control the project budget includes:

- Ceredo-Kenova Elementary School, Wayne County BOE
  Bid 08/2015 - $3M Under Budget

- Goodwill Prosperity Center, Goodwill Industries of Kanawha Valley
  ZMM Estimate $1.19M, Construction Cost was Under $900K

- Glenwood School HVAC Replacement, Mercer County BOE
  ZMM Estimate $1.36M, Construction Cost of $1M, 0.0% Change Orders

- Kenna Elementary School, Jackson County BOE
  Project was Under Budget, 0.2% Change Orders

- Huntington East Middle School, Cabell County BOE
  Project was $1.2M Under Budget ($23M), 1.7% Change Orders

Construction Duration
Nearly every project that our team is engaged to perform design services for has a 'hard' deadline for completion, many times tied to the availability or expiration of project funding. ZMM consistently delivers on projects with challenging schedule constraints. ZMM will insure that this project will be completed in the agreed construction period utilizing the following methods:

- ZMM has developed Division 1 documents that tie the receipt of all deliverables required to administer the construction phase of the project to payment applications. ZMM will reject any payment application that is not accompanied by all required information including submittal schedules and logs, RFI logs, updated project schedules, etc.

- ZMM monitors all construction phase submittals and correspondence to verify that we are returning information at a pace that will help expedite project completion. ZMM management reviews the status of all RFI's and submittals weekly. ZMM will also staff the construction phase with staff that will be able to provide immediate answers at the project site to expedite the work.

- ZMM will work with the WVDNR to develop a realistic construction schedule that includes anticipated weather days. This schedule will be included in the specifications, and reviewed at the pre-bid meeting to reinforce the critical nature of meeting the schedule, and the intent of enforcing liquidated damages.

Experience with Each Required Discipline
As a full service design firm, ZMM Architects and Engineers employs all of the necessary staff to complete all building related design services in-house and EL Robinson will complement our team by providing civil engineering and landscape architecture services for this engagement. Our team is comprised of some of the leading professionals in West Virginia, and is experienced in each discipline noted below. Project experience and resumes demonstrating this expertise are contained in the attached proposal. ***Additionally, the quality of ZMM's design effort has been recognized by the American Institute of Architects West Virginia Chapter with fourteen design awards in the last ten years – an achievement unrivaled in West Virginia.***

Project Management	ZMM
QA/QC	ZMM
Civil Engineering	EL Robinson
Landscape Architecture	EL Robinson
Structural Engineering	ZMM
Architecture	ZMM

Interior Design	ZMM
Mechanical Engineering	ZMM
Electrical Engineering	ZMM
Estimating	Win Strock
Construction Phase	ZMM

Summary

ZMM possesses the residential design experience, recent WVDNR experience, and project approach to ensure the successful delivery of the Chief Logan Lodge Cabin Project and the System Wide Picnic Shelter Projects for the West Virginia Division of Natural Resources. Our team's commitment to design quality, constructability, and design experience throughout West Virginia makes us the right partner for the WVDNR for this engagement.

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E.L. ROBINSON
ENGINEERING

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

Beech Fork Lodge and Conference Center, Lavalette, WV
Adam was the Project Manager for a new lodge and conference center for the WV Department of Natural Resources at Beech Fork State Park. Designed on a peninsula, the plan is arranged to separate the guestrooms and

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 - 2014
- WV Qualification Based Selections Council, President, 2012/2013
- Leadership WV 2010 - 2012
- Charleston Rotary
- West Side Main Street, Board of Directors 2008 - 2014
- City of Charleston Land Trust 2008 - 2014

other guest-only facilities from the public functions of the building such as the restaurant, lounge, gift shop, and conference rooms. All guestrooms offer a lake view, a 2-story atrium opens up each end of the lobby with curtain-wall glazing, and an indoor pool provides a transparent connection to the outdoors. A high-performance envelope was designed to eliminate thermal bridging and the potential for condensation.

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

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

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

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.

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.

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

Participated on the team that won the following awards and acknowledgements:
2014 WV AIA Merit Award *Girl Scouts of Black Diamond Council, Charleston, WV*
2011 WV AIA Honor Award *Joint Interagency Training and Education Center (JITEC),* Kingwood, WV
2011 AIA Honor Award *State Office Building #5, 10th Floor Renovation,* Charleston, WV
2009 AIA Merit Award *WVARNG Construction and Facilities Management Office*, Charleston, WV

Jeff Nelsen, PLA

E.L. ROBINSON ENGINEERING

Role
Wastewater Engineer

Professional Registrations
Registered Landscape Architect (WV, OH, VA, MD, IN)

Mr. Nelsen has practiced landscape architecture for over 30 years principally in West Virginia but also has completed projects in Ohio, Indiana and Pennsylvania. His professional experience has afforded him opportunities to assist clients with park and recreation planning and design, community and urban planning, streetscape design, campus planning for elementary, secondary and higher education facilities and site planning and design for residential, commercial and public places. He has been involved in environmental planning and restoration especially lands degraded from past mining practices. He has managed site development on significant projects such as the Stonewall Jackson Resort and the Tamarack Art Center yet enjoys working with clients and communities assisting them visualize the improvements for their parcels and neighborhoods.

Education
Bachelor of Science in Landscape Architecture, West Virginia University, 1976

Civic Affiliations
- West Virginia Chapter American Institute of Architects, Member

Project Experience

Beech Fork State Park Lodge Development - Wayne, WV
Provided feasibility studies of three different sites for new lodge for the state park beginning in 2008 through 2011. Working with WVDNR and the architectural firm ZMM of Charleston to develop a conceptual plan for the lodge and site improvements for a 75 room lodge near the lake's beach area with a total construction cost of approximately $29 million.

Clay Center for the Arts and Sciences - Charleston, WV
Prepared construction and bidding documents and provided construction administration for a new public plaza space at the corner of Leon Sullivan Way and Washington Street for Charleston's premier performing arts and science center. The site's design called creating a cool green zone for people to gather informally and as an entertainment venue for special events. The relative flat site consisted of a circular plaza and fountain surrounded by a concentric ring of granite seat walls at the edge of the pavement radiating outward into the lawn area. Large 4" and 6" caliper Linden and Honeylocust trees were planted to create a shaded canopy for the space in front of the center.

Washington Street Streetscape - Charleston's East End, WV. Prepared master plan, construction and bidding documents and provided construction administration services for the remaining segment of the Washington Street streetscape from the state Capitol grounds to Charleston Area Medical Center which entailed a ½ mile of sidewalk

replacement, new street lighting, brick accent pavements, street trees, landscaping, utility line relocation and burial and new underground electrical service for 30 structures. Total budget for the project was approximately two million dollars.

Rich Mountain, Laurel Hill and Corricks Ford Civil War Battlefields, Randolph, Barbour and Tucker Counties, WV
These are three distinct battlefields but are all related to each other because they are a progression of the first major conflict in northwestern Virginia in July, 1861 between approximately 9000 Union soldiers led by General George McClellan and 5000 Confederate troops led by General Robert Garnett. The armies engaged each other at these three locations over a week's time resulting in the defeat of the Confederate forces. This early Union victory allowed Union sympathizers in the western counties of Virginia to organize a secessionist movement to form the new state of West Virginia. Provided master planning, interpretation recommendations, signage and trail development for each of these sites with archeological and historical consultants on the team. The planning and design efforts of these new public lands were focused on preservation and interpretation of each site's story about West Virginia's role in the Civil War.

Stonewall Jackson Resort - Roanoke, WV
In the most recent major expansion of a West Virginia State Park, assisted the developer in an unique public private partnership to build new facilities at the park which included master planning for a lodge, golf course, expanded campgrounds, cabins, expanded day use facilities, trails and other site features. Prepared documents for regulatory review by the USACOE, WVDEP, and WVDNR. Managed the development of site preparation construction documents for the lodge, golf clubhouse, cabin area, and future campground areas. Assisted the golf course design team with storm water management and permitting issues. After the completion of new facilities have continued to assist the developer on future proposed amenities for the resort.

Tamarack Art Center - Beckley, WV
Working with the architect for the project prepared the site master plan and managed design for all exterior improvements including access road, bus and car parking, earthwork, stormwater management, utility design, pedestrian walkways and plaza spaces, fountain design, landscaping, and irrigation design. This $20 million facility is widely recognized in West Virginia and surrounding states as one of the finest venues for West Virginia artisans.

BOPARC Master Plan Update - Morgantown, WV
Due to the significant growth in Morgantown, assisted the Morgantown Board of Park and Recreation Commission with an update of the existing and proposed park facilities maintained by the City of Morgantown. This involved site review of approximately 20 facilities, development of a needs analysis survey and interpretation of its findings, preparation of new master plans for each park, preparation of cost opinions and phased recommendations for the planned $12 million of improvements.

Aspen Village, Timberline Resort - Canaan Valley, WV
Provided master planning and managed site design, permitting and engineering for a new 50 lot subdivision near Timberline. The development involved grading layout for lots, roads, drives, utilities, pond enlargement, and site amenities. Project entailed 30 duplex and triples units and 20 single family lots. Coordinated utility extensions with each respective company and assisted several of the property owners with site planning of their home sites.

West Side Community Renewal Plan - Charleston, WV
Working with the Charleston Urban Renewal Authority, Charleston Planning Department and community leaders on the West Side developed the largest urban renewal plan within the city encompassing 228 acres and almost 900 buildings. With assistance of a public facilitation consultant held a series of meetings with residents and business owners to gain input into their vision for the plan. The adopted recommendations identified significant public and private recommendations with the strongest focus on a new home ownership zone around the new elementary school planned on Florida Street.

Robert Doeffinger, PE

ZMM ARCHITECTS & ENGINEERS

Role
Mechanical Engineering Principal

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

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

After graduate school in Architectural Engineering, Mr. Doeffinger joined ZMM. He has 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 served by a 4 - pipe hot and chilled water system with an energy recovery ventilation system. This project achieved LEED Gold Certification.

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

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

the opportunity for a series of outdoor living areas, while also respecting the massing of the adjacent residences in the Historic District.

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

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

West Virginia Regional 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.

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

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.

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.

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

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.

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, as well as serving on the Board of Directors.

Project Experience

Joint Interagency Training and Education Center (WVARNG) 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. The project won LEED Gold Certification.

Bridgemont Community and Technical College (Davis Hall, Building 704), Montgomery, WV
Mr. Hedrick was 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 and Technical College, Williamson, WV Mr. Hedrick was responsible for the structural

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

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

Employment History
2013 - Present, Board of Directors, ZMM
2007 - Present, Structural Engineer, ZMM
2003 - 2007, Structural Engineer, McCall Engineering, Inc

Civic Affiliations
- American Institute of Steel Construction, Member

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.

Jackson County Armed Forces Reserve Center, (WVARNG) 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 received LEED Silver 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.

Edgewood Elementary School, Charleston, WV Mr. Hedrick was involved with the 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.

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

Kenna Elementary School, Kenna, WV
Mr. Hedrick was responsible for the structural design for the new Kenna Elementary School.
The new school will serve approximately 375 students in grades Pre-Kindergarten through 5th Grade. The new facility replaces the existing school that was falling into disrepair and lacked the essential spaces for a thriving 21st Century learning environment. The site includes a separate bus drop-off area and parent drop-off area. There is also a designated Pre-K drop-off. A fenced Pre-K/K play area is provided, as well as a play area for the Grades 1-5. Several playing fields will be located on site as well.

Charleston Civic Center, Charleston, WV
Mr. Hedrick is currently the structural engineer on the Charleston Civic Center expansion and renovation project. The $75M, 283,000 SF design-build project is being completed as a collaboration with tvsdesign and BBL Carlton. The design commenced in the spring of 2015, and construction is scheduled for completion in 2018.

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.

Mary Jo Cleland, PE

ZMM
ARCHITECTS & ENGINEERS

Role
Civil Engineer

Professional Registrations
Professional Engineer (WV)

Ms. Cleland is responsible for the site design for ZMM projects. She coordinates with the project architects and mechanical and electrical engineers to integrate the site layout with the building requirements. Ms. Cleland works with the client and the architect to plan the site circulation, parking, and green space. She is responsible for storm water management and utility layout. For sites with environmental concerns, Ms. Cleland coordinates with the appropriate agencies and assists in permit applications.

Ms. Cleland began her career as a 2nd Lieutenant in the US Air Force as a project engineer for aerospace projects. After serving four years in the Air Force, she moved back to West Virginia and began her career in civil engineering. She began assisting lead engineers at an environmental and engineering consultant firm with air quality permitting, utility extension projects, and site development projects. After gaining experience at the consultant firm, Ms. Cleland joined ZMM as the civil engineer for the firm. She has experience with urban and rural site, storm water management system, and site design.

Project Experience

General Service Division – Surplus Property, Dunbar, WV
Ms. Cleland is currently the Civil Engineer on the Surplus Property. This property consists of a new 20,000 SF metal building storage facility inclusive of 5,000 SF of new administrative offices. The new building will replace the existing structures currently located in the floodplain, and will address several site issues including proper drainage, traffic flow, and correct floor elevations in regard to current floodplain requirements. The demolition of the existing structures along with the new construction will be phased to maintain continuous operation of the facility.

West Side Elementary School, Charleston, WV
Ms. Cleland was responsible for the site design and stormwater management for this site located within a city block. The site utilities were readily available and minimal grading was required for this site. The challenge was the stormwater management requirements. The pre-construction site conditions were a small school building and a large play field

Education
Bachelor of Science in Education, West Virginia State University, 2001

Bachelor of Science in Aerospace Engineering, United States Naval Academy, 1993

Employment History
2009 - Present, Civil Engineer, ZMM
2002 - 2009, Project Engineer, Potesta & Associates, Inc.
1993 - 1997, Aerospace Engineer, United States Air Force

Civic Affiliations
- National Society of Professional Engineers
- West Virginia Society of Professional Engineers

took up most of the site. The post- construction site conditions were the opposite creating a significant increase in stormwater runoff rate. A stormwater retention system was designed to infiltrate the majority of the stormwater and recharge the groundwater.

Edgewood Elementary School, Charleston, WV
Ms. Cleland was the Civil Engineer on the new Edgewood Elementary School. Ms. Cleland was responsible for the site development including utility extensions and relocations, stormwater drainage design, site pedestrian and traffic circulation, and parking area layout. The school was designed as a 21st Century Learning Environment, with a focus on integrating technology into the delivery of the curriculum. Instructional areas will be located off of an open 'exploratorium' that is being designed to function like a children's museum, providing a variety of learning opportunities, and flexible educational spaces. The school integrates sustainable design principles to serve as a teaching tool for the students.

Harts PK-8 School, Harts, WV
Ms. Cleland was responsible for site design and permitting. The site was constrained by the Guyandotte River, State Route 10, and an unmarked cemetery in the middle of the site. The site was laid out to avoid disturbance of the cemetery and create a building pad and access roads to satisfy the client, State Fire Marshall, and vehicular circulation. The site preparation package included building pad grading, rough site grading, and storm water management. Ms. Cleland coordinated with the local utility agencies, WV Department of Transportation, the United States Army Corps of Engineers, the local floodplain manager, and the WV Department of Environmental Protection.

Bridgemont (BrideValley) Community and Technical College - Master Plan, Montgomery, WV
Ms. Cleland is the Civil Engineer on the overall Master Plan services to Bridgemont CTC, ZMM worked with various stakeholders to develop a Master Plan for Bridgemont's current and future facilities at the Tech Park. The Master Plan incorporated the need to develop a consistency between Bridgemont's Montgomery and South Charleston campuses, while also integrating the Bridgemont brand into the Park. The final design included planning for a new classroom and laboratory building adjacent to Building 704, across from the Advanced Technology Center. Signage, site circulation, parking, and campus amenities were also included in this planning process.

Girl Scouts of Black Diamond Council, Charleston, WV
Ms. Cleland was the Civil Engineer on the new Volunteer Resource Center and Girl Zone/Urban Camp in Charleston, WV. The 18,000 SF project will completely renovate an old car dealership into administrative offices, a community gathering space, and a small hotel (Urban Camp) for Girl Scouts visiting the Charleston area. This new main building will bring all the operations of the Girl Scouts of the Black Diamond Council under one roof.

Tackett Family Readiness Center, Charleston WV
Ms. Cleland was responsible for site design for a two story building located on a hillside. Due to the existing slopes, several analyses to determine the optimal finished floor elevations of the building. The building was set into the hillside to allow for on-grade access to both entrances. The access road was design with handicap parking at both entrances. The client wanted the building to have the least impact as practical for the site development. A large segmental block wall was utilized to limit disturbance of cut slopes.

Project Experience with Other Firms: Ms. Cleland assisted with site development projects, utility extensions, pump station design, outlet structure design, and wastewater treatment plant design prior to coming to ZMM. In the eastern panhandle of West Virginia, Ms. Cleland designed the site layout and utilities for a planned hill side community with phased development plans. She assisted on the site utilities and sanitary sewer extension project for a two schools in Southern West Virginia.

Ms. Cleland also has experience with environmental investigations and air quality permitting. She assisted industrial clients with preparation and assembly of air permit application to the West Virginia Department of Environmental Protection. Ms. Cleland coordinated with the agencies through to permit issuance.

Scot Casdorph, PE

ZMM ARCHITECTS & ENGINEERS

Role
Electrical Engineer

Professional Registrations
Professional Engineer (WV, OH *pending*)

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

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

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

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

existing on the same piece of property. The new construction blends seamlessly with the older historic structure.

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

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

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

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

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

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

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

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

Oak Hill Elementary, Fayetteville, WV
Valley High School, Smithers, WV
Divide Elementary School, Lookout, WV

Hank Walker, AIA, LEED AP

ZMM ARCHITECTS & ENGINEERS

Role
Architect

Professional Registrations
Registered Architect (WV)
LEED Accredited Professional

Mr. Walker is responsible for overseeing the planning, design, and construction of a variety of types of building projects to meet the needs of the clients. Mr. Walker works with other in-house engineers and design professionals throughout the building process to provide a thoroughly integrated product. Mr. Walker also coordinates with various consultants, code officials, and government agencies to provide a quality building.

Mr. Walker has broad experience in scopes of both new and renovation projects throughout his years at ZMM.

Project Experience

Cedar Lakes Conference Center, Ripley, WV
Mr. Walker has worked on several renovation projects at Cedar Lakes including the reroofing project which was completed in 2006. This project included new metal roofing to 11 buildings.

The Retreat at Glade Springs Resort, Daniels, WV
Mr. Walker was responsible for the design of a variety of townhouses assembled into a multi-unit building that fit into the hilly terrain of the site.

Blackwater Falls and Cacapon WV State Parks, Davis, WV
Mr. Walker was responsible for the design of additions to the existing historical lodge building for the two state parks. Mr. Walker incorporated new meeting rooms, elevator, pool and health spas into the existing lodge building and incorporated various renovations to existing buildings to make the buildings more usable for large groups.

Tackett Family Readiness Center (WVARNG), Charleston, WV Mr. Walker was responsible for the design of a two story building set on a sloped hillside. The new facility will provide a variety of offices and public spaces including a chapel, multi-purpose area, a lobby, and a lounge.

Alderson Federal Prison Camp - New Housing Units Mr. Walker was responsible for the design of two new 500 bed housing units. These units were constructed on the historical site of the first federal prison for women. The prison was in operation during the new construction of both housing units.

Education
Bachelor of Science Architecture, 1973
The University of Cincinnati

Employment History
1979 - Present, Project Architect, ZMM
1977 - 1979, Designer, ZMM
1977, Designer, Holderby Engineering
1973 - 1976, City Planning, American Peace Corps, Iran

Civic Affiliations
- American Institute of Architects, Member
- West Virginia Society of Architects, Member
- Charleston Salvation Army advisory board 1990 – Present
- Advisory Board Chairman 1997 - 1998

WV State Capitol Complex, Charleston, WV
Mr. Walker has worked on several renovation projects on the State Capitol Complex including: roof replacements, culture center gift shop, window replacements to buildings 5, 6, & 7, door and security project, and renovations to building #5, 10th floor - Office of Technology.

Barboursville Middle School, Barboursville, WV Mr. Walker was part of the design team that was responsible for designing a replacement building for the existing middle school. The design required that the new school building be built where the existing building was occupied on the same size. An existing large gymnasium was renovated and incorporated into the next education complex.

Braxton County Memorial Hospital, Gassaway, WV Mr. Walker has worked on a variety of additions and renovations projects at the hospital. The renovations and additions were completed on the emergency room floor, medical surgical, radiology, laboratory, and outpatient areas while the hospitals departments were kept in operation.

Awards and Acknowledgements:
Design Award Received from the Corps of Engineers for: The Stonewall Jackson State Park Facilities.

Mr. Walker received recognition in the *Charleston Gazette* Newspaper for his own home residence, which incorporated "passive solar" and other "Green" Design principals.

Jennifer Sinclair

ZMM ARCHITECTS & ENGINEERS

Role
Interior Designer

Mrs. Sinclair is ZMM's Interior Designer. After earning a BS in Interior Design from West Virginia University, Mrs. Sinclair started her career in Savannah, GA working as a designer for a Steel case dealer. In 2006, Jennifer relocated to Atlanta, GA where she worked as an Interior designer for one of Atlanta's best design/build remolding companies. While working in Atlanta, she had several projects published in Atlanta Home Improvement Magazine. After living and working in Atlanta for four years, Jennifer and her family relocated back to their home state of West Virginia where Jennifer joined ZMM as an Interior Designer.

Mrs. Sinclair has experience with private enterprises, government, healthcare, and educational design. As the interior designer for ZMM, Jennifer works with the client and the architect to plan the interior finishes for the project. Jennifer designs the floor finish patterns, custom casework, furniture arrangements, as well as selecting the appropriate paint colors, fabrics and window treatments for each project. She is responsible for creating all the interior finish plans for each project to be used during construction.

Project Experience

Beech Fork State Park and Lodge, Wayne, WV
Mrs. Sinclair worked closely with ZMM Architects and the WV Department of Natural Resources to develop and interiors package for this new lodge and conference center.

Goodwill Industries of Kanawha Valley. WV
Mrs. Sinclair was responsible for the selection of the interior finishes and finish plans for the new Prosperity Center, located on Charleston's Westside. The Prosperity Center will help prepare members of the community for the workforce.

Culloden Elementary School, Culloden, WV
Mrs. Sinclair was responsible for the interior finish selections for the new addition of this elementary school. This addition added a new administration area, activity room, media center and new 3rd, 4th and 5th grade classroom.

Explorer Academy, Huntington, WV
The Explorer Academy is an Expeditionary learning environment that is the first of its kind in West Virginia. The curriculum for this program is very hands-on and is a real-world way of learning. Mrs. Sinclair is responsible for the interior

Education
Bachelor of Science in Interior Design, West Virginia University, 2002

Employment History
2013 - Present, Interior Designer, ZNN
2010 - 2012, Interior Designer, Smith Floor Covering, Inc.
2008 - 2010, Interior Designer, Sinclair Interiors, LLC.
2006 – 2008, Interior Designer, Sawhorse, Inc.

Civic Affiliations
- USGBC, West Virginia Chapter Member

finish selection and plans of this new school, and the furniture procurement. The goal for the interiors is to achieve an inviting, homelike environment for its students.

Ripley Elementary Early Learning Center, Ripley WV
This new Early learning Center is located in a former WV Army Reserve Center. Jennifer was responsible for all of the interior finish selections and interior finish plans for this remodeling project.

Jackson County Sherriff's Office, Ripley, WV
Jennifer worked closely with ZMM architects and engineers to fully develop the interiors for this new sheriff's office. Introducing rubber flooring over vct into the space has allowed for an easier and more maintenance friendly flooring. The client has been very satisfied with this project and has implicated similar finishes into other Jackson county project. Such projects, also designed by Mrs. Sinclair and the team at ZMM, include the Jackson County EMS Center and the remodel and addition for the Jackson County 911 center.

Additional Experience:
Relocation and remodel of the Mason County Board of Education offices, Pt. Pleasant, WV
Ceredo-Kenova Elementary School, Kenova, WV
Crum Elementary School, Crum, WV
Houston Company Store, Kimball, WV
WV Division of Insurance, Charleston, WV
HNTB – State police maintenance garage, Beckley, WV
General Service Division Surplus Property, Dunbar WV

Glenn Savage, CSI-CDT

ZMM ARCHITECTS & ENGINEERS

Role
Construction Contract Administrator

Mr. Savage is responsible for overseeing the construction of ZMM projects. He is the liason between the Owner and Contractor. Responsible for biweekly site visits, attend progress meetings, certify applications for payment, change order processes, Request for information.

Mr. Savage has performed construction administration services on a variety of building types including: Educational Facilities, Correctional Facilities, and Office/Light Industrial Facilities.

Mr. Savage's past experience in the construction testing and environmental fields is a benefit to clients during the site preparation and foundation installation.

Project Experience

- Cacapon State Park, Berkeley Springs, WV
- Blackwater Falls State Park, Davis, WV
- West Virginia State Police Office, So. Charleston, WV
- Edgewood Elementary School, Charleston, WV
- Divide Elementary School, Charleston, WV
- Craigsville Elementary School, Craigsville, WV
- Oak Hill Elementary, Oak Hill, WV
- Bridgemont (BridgeValley) Community & Technical College – Davis Hall
- Mountaineer Middle School, Clarksburg, WV
- Nicholas County High School, Summersville, WV
- East Greenbrier High School, Lewisburg, WV
- Southern West Virginia Community & Technical College, Williamson, WV
- CAMC Teays Valley IUC, Teays Valley, WV
- Highland Hospital, Charleston, WV
- Beech Fork Lodge, Wayne, WV
- The Retreat at Glade Springs, Daniels, WV
- WV State Police Office, South Charleston, WV
- WV State Office Building #5, 10th Floor, Charleston, WV
- Wood County Justice Center, Parkersburg, WV
- West Virginia Western Regional Jails
- Alderson Federal Prison Camp, Alderson, WV
- Jean Dean Safety Building, Huntington, WV
- Summersville Hospital Medical Building, Summersville, WV

Education
Bachelor of Science, University of Charleston, 1997

Associate of Science, West Virginia State University, 1992

Employment History
1998 - Present, Construction Contract Administrator, ZMM
1997-1998, Geotech
1992 -1997, Battle Ridge Construction
1981-1992, H. C. Nutting Geotechnical Testing Engineers

Civic Affiliations

- Member CSI
- Kanawha Valley Leadership Course Graduate
- Maintained all certifications for WVDOT testing materials

Joe Carney, PE, PS

E.L. ROBINSON ENGINEERING

Role
Wastewater Engineer

Professional Registrations
Registered Professional Engineer (WV, KY, MO)
Registered Professional Surveyor (WV)

Mr. Carney has extensive experience in design engineering, preparation of contract documents, construction supervision and contract administration.

His wide experience in civil engineering projects includes water, wastewater, storm sewers, roads, earthwork, utility relocation and site development.

He has worked in private industry and for several Consulting Engineering firms prior to joining ELR in 1982.

Mr. Carney has designed and supervised the construction of numerous projects, including a $4 million sanitary sewer system, 5 bridges, over $5 million of utility relocations for highway projects, and many $1 million waterline and sewer projects. Mr. Cart has over 25 years of experience in providing consulting engineering services. Clients served have included Industrial, Public and Private Institutions and State and Federal Agencies.

Joe serves as the State Director of the West Virginia Society of Professional Engineers, and as the Past President of the Charleston Chapter of the West Virginia Society of Professional Engineers. Additionally, Joe was honored in 1998 as the Engineer of the Year by the West Virginia Society of Professional Engineers.

Project Experience

- Blackwater Falls State Park Wastewater Treatment Plant for the lodge.
- Holly River State Park Wastewater Treatment Plant for the park.
- Tygart Lake State Park Wastewater Treatment Plant for the park.
- Town of Wayne, West Virginia combined sewer separation.
- Putnam County Public Sewer District Sanitary Sewer Project.

Education
M.S. Civil Engineering, University of Missouri at Rolla, 1974

Bachelor of Science, Aerospace Engineering, West Virginia University, 1969

Civic Affiliations
- American Society of Civil Engineers
- National Society of Professional Engineers
- American Water Works Association
- Water Environment Federation

Beech Fork State Park Lodge

Lodge Design

ZMM
ARCHITECTS & ENGINEERS

E.L. ROBINSON
ENGINEERING

LOCATION:
Wayne, WV

COMPLETION:
TBD

COST:
Est. $34M

CONTACT:
Bradley Leslie, PE
Assistant Chief
WVDNR
State Parks Section
324 4th Avenue
So. Charleston, 25303
304.558.2764 x 51823

The goal of the lodge study was to help determine the feasibility for a new lodge at Beech Fork. This objective was achieved through the development of a concept for a 75-room lodge located on the banks of Beech Fork Lake in Wayne County, West Virginia, which is designed to benefit a variety of visitors. The form of the building was influenced by the site configuration as well as the functions contained within it.

The floor plan is arranged in a way to separate the guestrooms and other guest-only facilities from the more public functions of the building such as the restaurant, pub, gift shop and meeting room. This allows visitors who may not be staying at the lodge to use these areas without encroaching on the privacy of lodge guests. All of the guestrooms are arranged to have access to views of the lake. Those views are also shared by the restaurant, meeting room and the recreation areas.

The exterior of the building is designed to simulate the craftsman style to evoke a more relaxed, comfortable and informal feel for guests and visitors. The brick, stone, siding and roof materials are common to the area and offer low maintenance and durability to provide a long-lasting, attractive structure.

Beech Fork State Park Lodge Feasibility Study

WV Division of Natural Resources

E.L. ROBINSON ENGINEERING

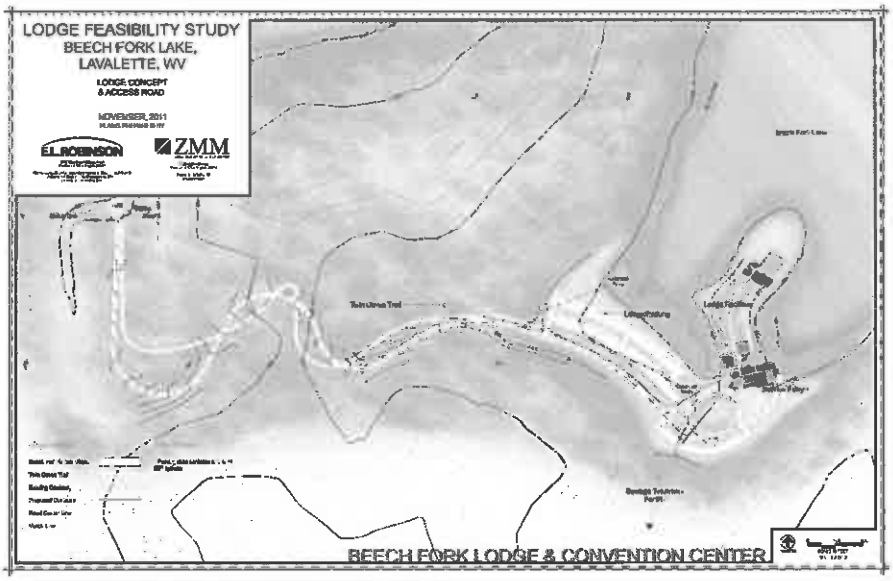
LOCATION:
Wayne, WV

COMPLETION:
2016

COST:
$28.5M

OUR ROLE:
Site feasibility studies, preliminary design, lead consultant involving civil, structural, transportation. Geotechnical engineering, landscape architecture with additional services from other consultants.

CONTACT:
Brad S. Leslie, PE
Assistant Chief
WVDNR
State Parks Section
324 4th Avenue
So. Charleston, WV
304.558.2764 x 51823

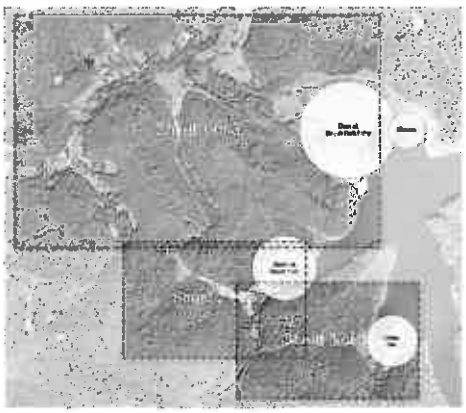


West Virginia Division of Natural Resources has considered a lodge for Beech Fork State Park since before it was opened in 1979. Several studies were completed in the past examining six possible sites for lodges ranging in size from 75 to 150 rooms. The last studies completed in 1995 recommended a 150 room lodge at Stowers Branch.

WVDNR retained E.L. Robinson's landscape architects in 2008 to study a new site near the Beech Fork Lake dam and marina for the feasibility of building a 35, 50, or 75 room lodge. This study found from earth work calculation, cost estimates, and slope analysis maps that the Stowers Branch site was still the most desirable based on costs, proximity to the lake, and visual impact on the park.

In 2011, WVDNR retained the team of E.L. Robinson Engineering and ZMM Architects to prepare a feasibility study for a 75 room lodge at the Stowers Branch location. This site is located near the swimming beach owned and operated by US Army Corps of Engineers and two miles by road from the Beech Fork Lake Dam.

This site was selected after two previous studies completed in 1994 and 2008. It was concluded that after studying six other possible locations, the Stowers Branch Site proved to be the most desirable location. This study is the basis of WVDNR efforts to lease additional USACOE property for the state park's facilities expansion.



ZMM
ARCHITECTS & ENGINEERS

Cacapon Resort State Park

WV Division of Natural Resources

LOCATION:
Berkeley Springs, WV

SIZE:
7,600 SF New
8,100 SF Renovated

COMPLETION:
1998

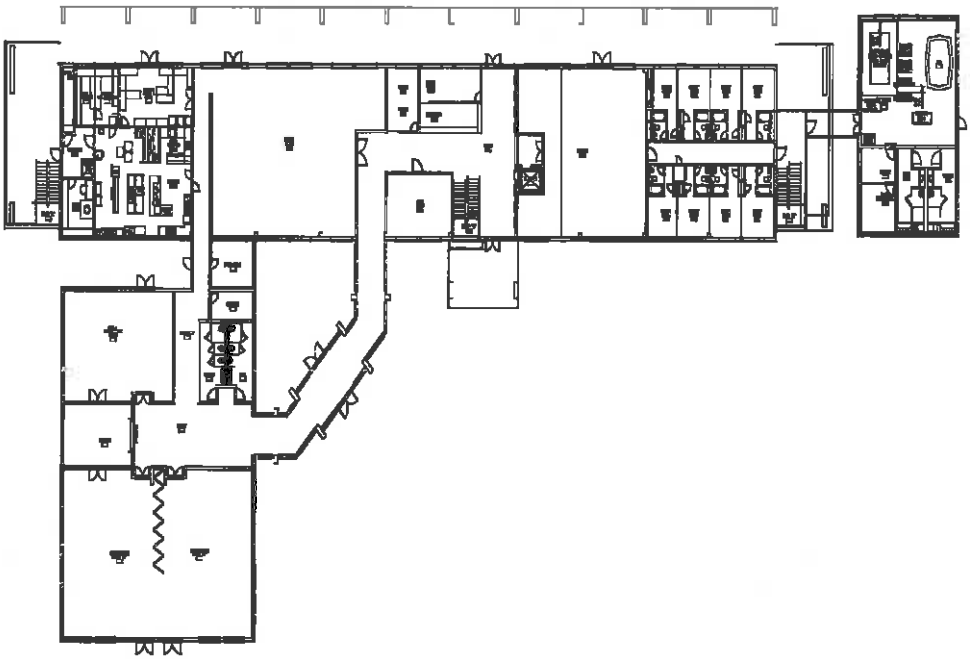
COST:
3,200,000

CONTACT:
Tom Ambrose
Superintendent
818 Cacapon Lodge Drive
Berkeley Springs, WV
304.258.1022

In 1998 ZMM completed an addition and renovation project to Cacapon State Park Lodge Building. This project included a new 7,600 SF conference center, providing a large 3,000 SF dividable conference room, a smaller 1,000SF conference room with connecting entrance lobby, toilets and storage facilities.

The existing kitchen facility was enlarged and renovated to provide banquet capabilities. An elevator was added to improve access to upstairs bedrooms and downstairs multi-use areas. The downstairs multi-use and meeting area were renovated along with the reception and office area.

Bid documents were prepared for a 2,500 SF health spa addition to the lodge building, but this portion of the project was not constructed. Other ZMM projects completed at Cacapon State Park include life safety compliance renovations to the WPA Old Inn building and a 4 bedroom cabin that is ADA accessible.



Blackwater Falls State Park
Sewage Treatment Plant Replacement

WV Division of Natural Resources

E.L. ROBINSON ENGINEERING

LOCATION:
Davis, WV

COMPLETION:
2008

COST:
$600,000

OUR ROLE:
Design and Construction

CONTACT:
Brad S. Leslie, PE
Assistant Chief
State Parks Section
324 4th Avenue
So. Charleston, WV
304.558.2764 x 51823

E.L. Robinson Engineering Co. was contracted by the West Virginia Division of Natural Resources, Parks & Recreation to design a new concrete sewage treatment plant which eliminates the potential for rust. The new plant also uses ultraviolet disinfection and provides a sand filter prior to discharge into the Blackwater Canyon.

The new plant was constructed adjacent to the existing plant. E.L. Robinson's design kept the existing plant in service during construction. A new building was also designed to match the building housing the existing plant.

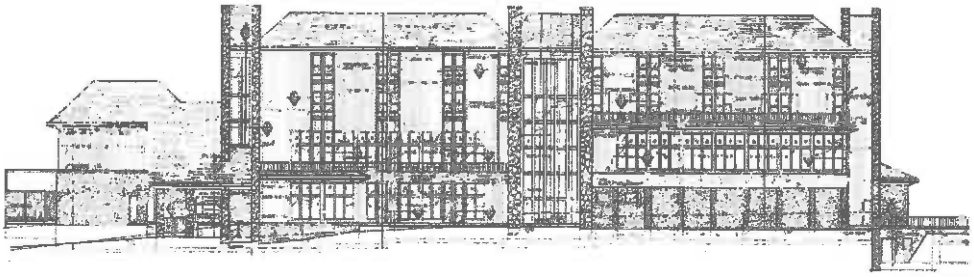
Canaan Valley State Park Lodge

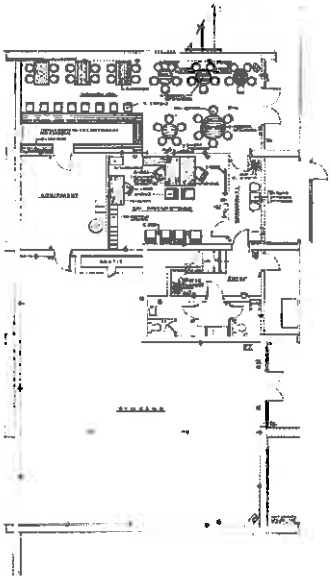
WV Division of Natural Resources

ZMM
ARCHITECTS & ENGINEERS

LOCATION:
Daniels, WV

COMPLETION:
Un-Built Project





In 1968 ZMM was selected to provide design services for a variety of facilities at Canaan Valley State Park. Many of the facilities remain actively utilized. A description of the various components can be found below.

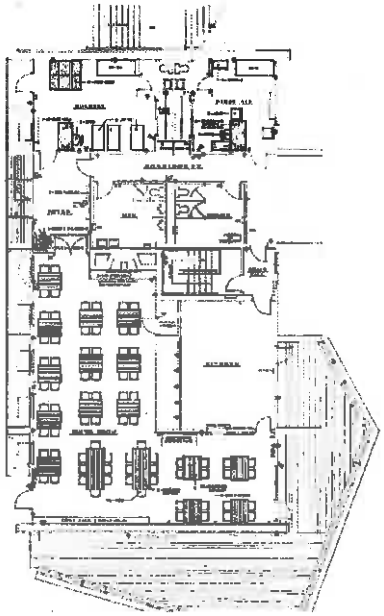
Lodge Facility

An original design for a four-story lodge and convention facility containing 60 guest rooms, dining, and kitchen facilities, a conference facility seating 300, an indoor pool and support space, was not constructed. Funding restraints required the construction of a lodge of reduced scope.

The original design concept utilized masonry bearing walls and a precast floor system with exterior materials of stone and wood to reflect the natural environment and concept of the park. Each guest room was designed to contain two double beds, bath, and toilets facilities.

Other Facilities

- New Park Cabins
- Golf Club House
- Ski Base Facility
- Park Headquarters Building



These one and two-story buildings were designed to withstand the harsh winter climate of Canaan Valley and are of wood frame and stone masonry construction. Exposed laminated wood beams are used in selected areas for aesthetic and structural purposes. Native materials, both for interior and exterior applications, have been used to help the buildings blend in with their surroundings.

Each building has its own, energy efficient, heating and cooling system, which on concert with the well insulated walls and roof keep overall energy costs to a minimum. The buildings were, each, situated on their respective sites to create a minimum of site disruption.

Southern Wayne County Water System Upgrades and Extensions

Wayne County Commission

E.L. ROBINSON ENGINEERING

LOCATION:
Wayne County, WV

COMPLETION:
2006 - 2016 (9 Projects)

COST:
$52M

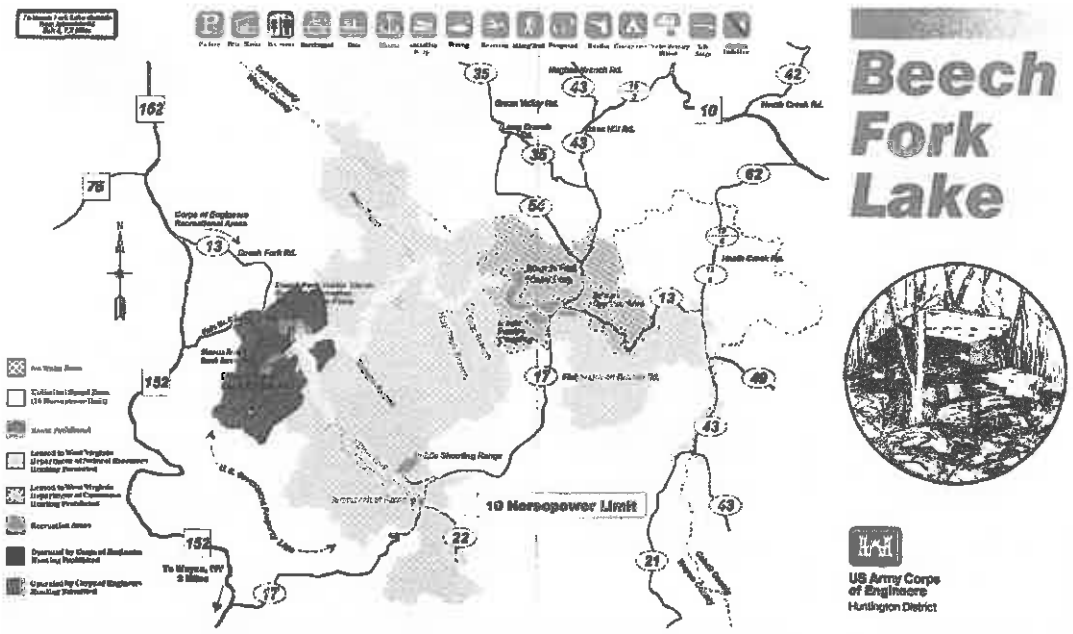
OUR ROLE:
Design and Construction Observation

ADDITIONAL MEMBERS:
Lavalette PSD
Crum PSD

CONTACT:
Bob Pasley, President
Wayne County Commission
700 Hendricks St.
Wayne, WV 25570
304.272.6592

E.L. Robinson provided engineering design services and geo-technical services to areas of Wayne County for water system upgrades and extensions. The scale of this project is tremendous. It is divided into nine separate projects and will be performed sequentially. The entire project covered 517 square miles and will service approximately 6,000 residents when complete. The total coverage for the County will be approximately 90%. The project costs an estimate total of nearly $52 million. The first project started in 2006 and is continuing with 3 completed, 2 under design and one bidding at present (2012).

The scope of work included construction drawings, preparation of funding application and personal meetings with the client. E.L. Robinson not only provided services such as design and funding guidance, but provided a team of trained construction inspectors available to observe the work until final completion.



ZMM
ARCHITECTS & ENGINEERS

Blackwater Falls State Park

WV Division of Natural Resources

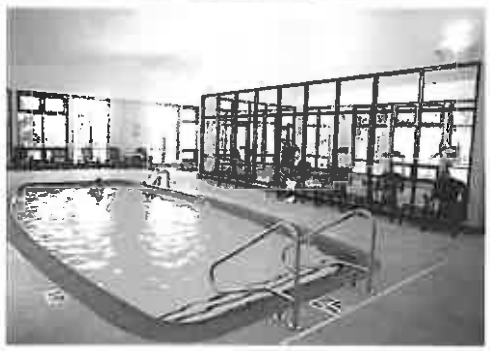
LOCATION:
Davis, WV

COMPLETION:
1998

COST:
$2,600,000

SIZE:
10,400 SF Addition

CONTACT:
Robert Gilligan
Park Superintendent
P.O. Drawer 490
Davis, WV 26260
304.259.5216



ZMM completed an addition and renovation to the historic Blackwater Falls State Park lodge building. This project included a 5,400 SF conference center addition providing a large 3,000 SF dividable conference room, entrance, lobby, toilets, and storage facilities.

To meet the owner's intent of reducing the visual impact of the construction, ZMM utilized existing building roof lines and materials for the building addition, which compliments to the original lodge design.

A 5,000 SF spa addition was added to the North Western end of the building provide a swimming pool, large Jacuzzi and a glass walled exercise area with locker rooms/showers. Interior office areas were also renovated with upgrades to mechanical, electrical, and fire alarm systems.

Stonewall Jackson Resort Park - Pedestrian Bridge

WV Division of Natural Resources

E.L. ROBINSON ENGINEERING

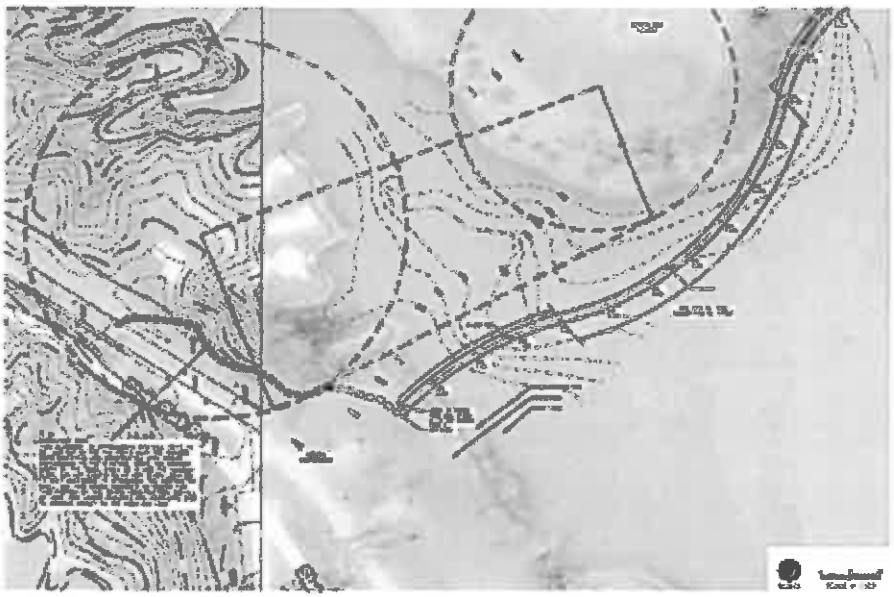
LOCATION:
Weston, WV

COMPLETION:
2011

COST:
$400,000

OUR ROLE:
Site design, structural engineering, landscape architecture, construction documents, bidding and construction observation.

CONTACT:
James G. Schotsch, PE
WVDNR
1200 Harrison Ave., Ste. 22
Elkins, WV
304.637.0301



West Virginia DNR received grant to build a pedestrian bridge approximately 900 feet across the lake from the lodge to the campground. An initial concept plan was developed for the bridge in 2008 which serves as the basis of the final design which EL Robinson was retained to develop.

It will be a 10' wide timber pile bridge with appropriate wooden decking and handrail. The accessible approach on the lodge side is complete and the contractor will be required to connect the bridge to that existing approach. At the campground end of the bridge an alignment will be shown on the plans that will allow for the Resort to build that accessible approach separate from the bridge construction.

Stonewall Jackson Lake Resort

WV State Parks

E.L. ROBINSON ENGINEERING

LOCATION:
Weston, WV

COMPLETION:
2003

COST:
$35M

OUR ROLE:
Master Planning, Site Construction Design, Permit Coordination

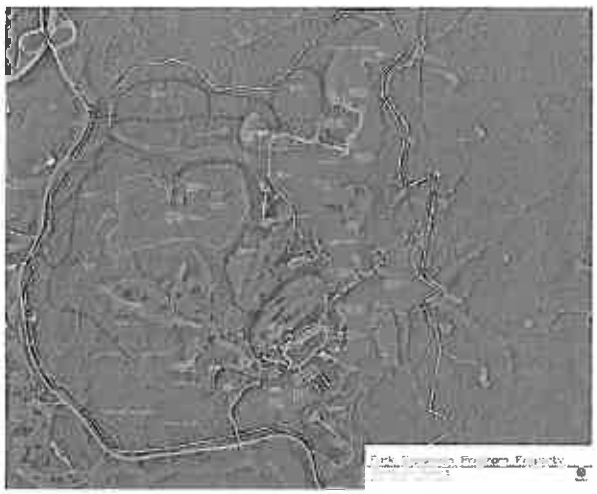
CONTACT:
Mr. Rudy Henley
West Virginia Commercial LLC
305 Washington St. W
Charleston, WV
304.347.7500

Stonewall Jackson Lake State Park represents a new beginning for state supported recreation development in West Virginia. The 35 million dollar

Resort planned by E.L. Robinson's landscape architects as part of the developer's team, was the first public/private partnership formed in the state for the development of facilities at a state park. The developer was responsible for coordinating all design and construction activity, while the state assisted in the financing package.

ELR landscape architects were responsible for master planning and site construction design for the 2,000 acre resort, including a 180-room lodge, an 18-hole signature golf course by Palmer Course Design Co., a 100-unit campground, cabins, day use improvements, a swimming pool, trails, access and parking. The firm was also responsible for permit coordination with the various state and federal agencies for wetlands, riparian corridors, utilities, stormwater and erosion controls. An extensive tree preservation and relocation program was planned and was coordinated by the firm.

This project was completed by E.L. Robinson's landscape architects prior to their affiliation with the firm.



Holly River State Park Wastewater Treatment Plant

WV Division of Natural Resources

E.L. ROBINSON ENGINEERING

LOCATION:
Davis, WV

COMPLETION:
1999

COST:
$66,000

OUR ROLE:
Design and Construction Observation

CONTACT:
Brad S. Leslie, PE
Assistant Chief
State Parks Section
324 4th Avenue
So. Charleston, WV
304.558.2764 x 51823

E.L. Robinson was retained by the West Virginia Division of Natural Resources, Parks and Recreation to provide planning, design and construction administration services for a new waste water treatment plant for Holly River State Park in Webster County, West Virginia.

The existing treatment plant was replaced by a 2,000 gallon per day package plant, with new controls and electrical equipment. The new plant serves part of the campground.

Tygart Lake State Park Wastewater Treatment Plant

WV Division of Natural Resources

E.L. ROBINSON ENGINEERING

LOCATION:
Davis, WV

COMPLETION:
2008

COST:
$118,000

OUR ROLE:
Design and Construction Observation

CONTACT:
Brad S. Leslie, PE
Assistant Chief
State Parks Section
324 4th Avenue
So. Charleston, WV
304.558.2764 x 51823

E.L. Robinson Engineering Co. was retained by the West Virginia Division of Natural Resources, Parks and Recreation, to provide planning, design and construction administration services for a new waste water treatment plant for Tygart Lake State Park near Grafton, West Virginia.

The existing treatment plant was replaced by an 8,000 gallon per day package plant, with new controls and electrical equipment. The new plant serves the lodge. A concrete retaining wall was also constructed due to poor soil conditions at the plant site.

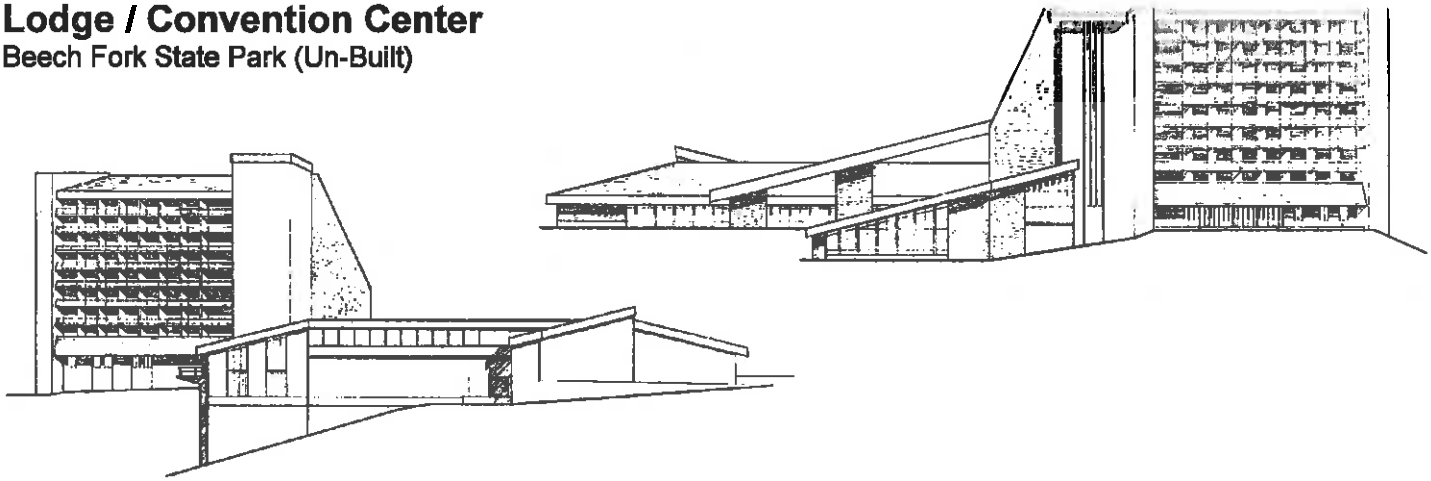
ZMM
ARCHITECTS & ENGINEERS

Additional WV State Park Experience

WV Division of Natural Resources

Lodge / Convention Center

Beech Fork State Park (Un-Built)



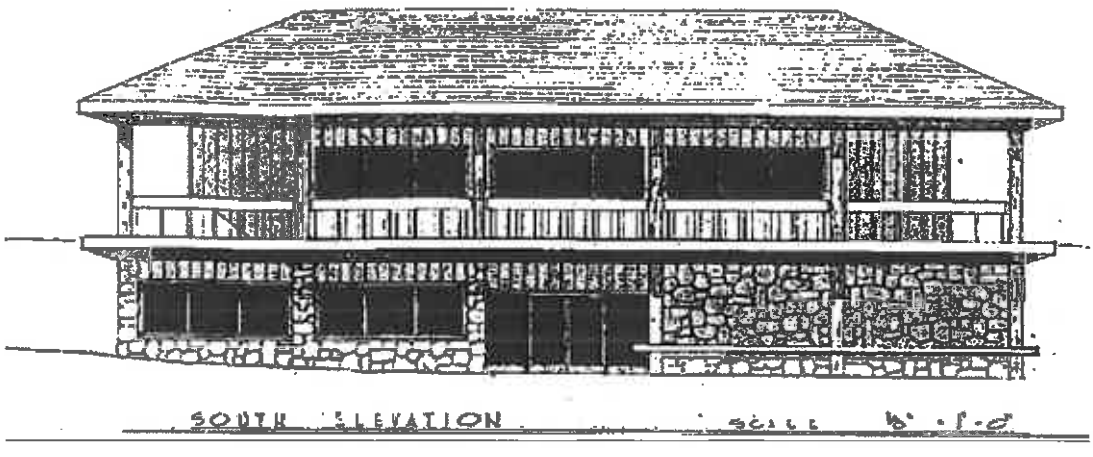
Miscellaneous Services:

Pipestem State Park
Hawks Nest State Park

Twin Falls State Park

Lodge and Convention Facility
Expansion Master Plan

- 25,000 SF Increasing Room Capacity from 20 to 50 Rooms
- The Expansion Increases the Dining, Kitchen, and Meeting Space for up to 200 People



Joint Interagency Training & Education Center

WVARNG - Billeting (Hotel)

ZMM
ARCHITECTS & ENGINEERS

LOCATION:
Kingwood, WV

SIZE:
285,000 SF

COMPLETION:
2013

COST:
$78.4M

OWNER:
COL Joseph Stephens
WVARNG
1707 Coonskin Drive
Charleston, WV 25311
304.561.6367

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

ZMM, 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 design intent is to create a campus environment that integrates existing buildings with new ones by using compatible, yet distinct building materials.

As the scale of the project includes several miles of roads, parking, and utility upgrades affecting the entire base, the project is being phased over a four-year construction period. Simultaneous construction of all of the new facilities, as well as phased construction in existing buildings, will minimize the disruption to current operations.

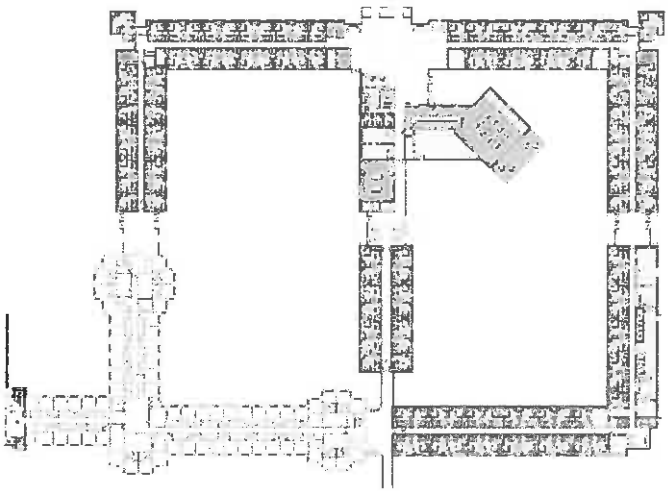
The new facilities are designed to meet all anti-terrorism/force protection criteria and are slated for LEED-NC silver certification from the U.S. Green Building Council. The new 82,000-SF operations building is prominently sited as the main focal point upon entering Camp Dawson through the secure access 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. 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.

Joint Interagency Training & Education Center

WVARNG - Billeting (Hotel)

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.



Adjacent to the JOC are three large training rooms, capable of seating 70 persons each. Lining the front of each room are LCD video walls with large, open areas for workstations, desks, and office equipment, as well as space for private offices. These rooms function primarily as training areas; however, their close proximity to the JOC allows maximum flexibility in securing the entire area from the rest of the building by means of card access-only doors.

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.

Charleston EDGE Complex

ZMM
ARCHITECTS & ENGINEERS

LOCATION:
Charleston, WV

SIZE:
41,250 SF

COMPLETION:
TBD

COST:
$10M

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

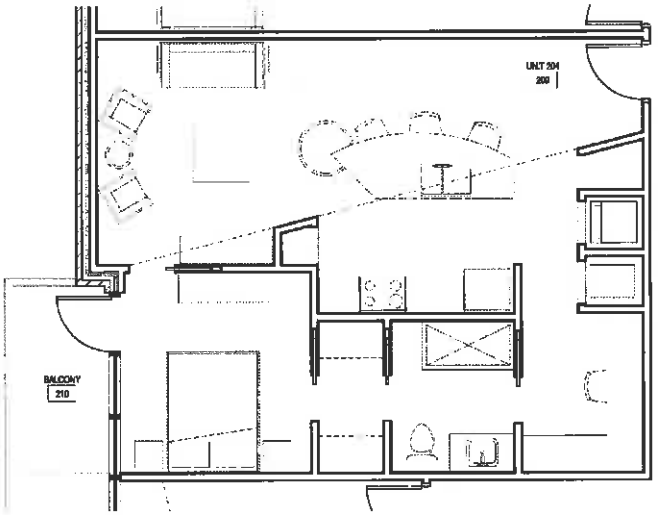
How does West Virginia attract and retain young talent? How do we keep our children and grandchildren in the State when the opportunities for them seem to be so much brighter in other areas? How do we stop the brain drain as our best and our brightest young professionals relocate to DC, Charlotte, and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

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

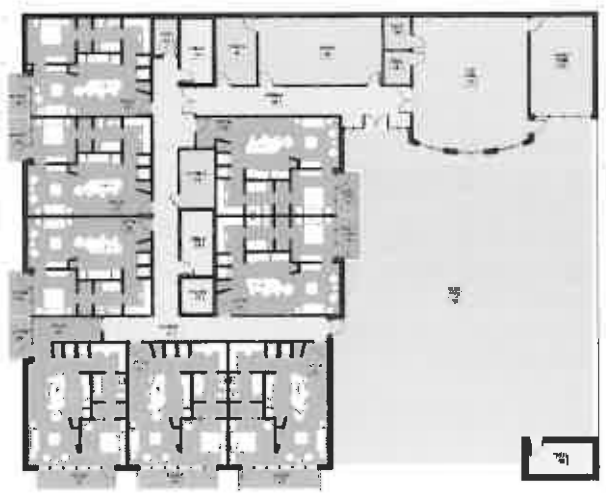
ZMM Architects and Engineers in association with Cooper Carry is currently assisting in the design and development of the Charleston EDGE Complex. The ZMM-Cooper Carry team conducted a visioning and design session where the design team obtained input from various community leaders and young professionals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

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

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



Typical Unit Plan



Second Floor Plan

Color Legend

- 1 BEDROOM UNIT
- AMENITIES
- CIRCULATION
- SERVICE

Matewan Amphitheater

Mingo County

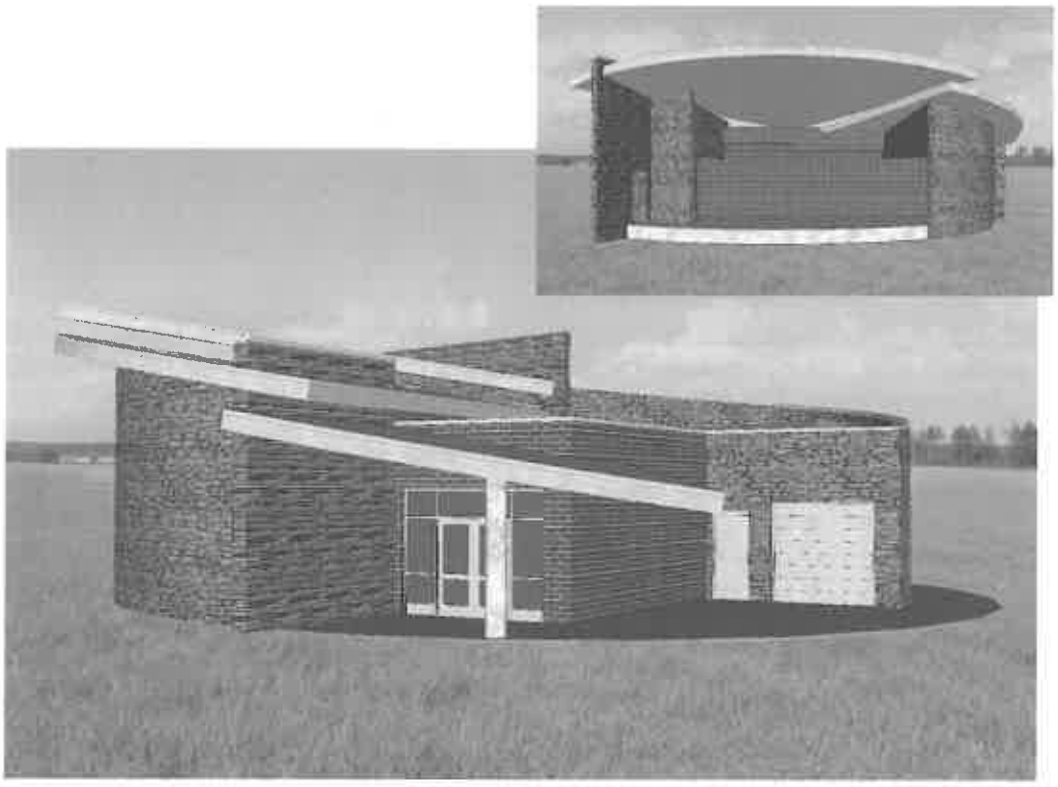
ZMM
ARCHITECTS & ENGINEERS

E.L. ROBINSON
ENGINEERING

LOCATION:
Mingo County, WV

COMPLETION:
Un-Built

COST:
Est. $437,582



The design intent of the Matewan Amphitheater was to create a user friendly and easy to maintain structure that would respond to the relevant design factors within the site context, the intended facility use, and the overall community experience.

In reviewing the site context for the Matewan amphitheater, several site elements were identified as items to be addressed in the design process. One of these key elements for the amphitheater design was solar orientation. As the sun rises in the east and sets in the west, it has an altitude which can create glare off from horizontal surfaces, and have a more direct sightline into people's eyes. Since the sun travels from east to west, its highest altitude is at the midpoint of the journey when shinning from the south direction. Therefore the optimal ordination for the building is to position the performance area facing south with a large overhanging cover at the performance area to block direct sunlight. Not only does this provide the best quality lighting for the performance area, but it also allows the audience to face north where there is only ambient light and no direct or harsh rays from the sun. Adding high flanking walls at each side of the performance area will help support the covered area above and prevent glare associated from lower altitudes of the sun shining from the east and the west.

The travel corridor around the site was another part of the site context that helped shape the amphitheater design. The travel corridor consists of both Mate Street and the rail road tracks that basically surround the site on all sides except the south side of the site. This travel corridor could be an unwanted source of noise. The surrounding mountains have the potential to compound the issue by creating a barrier for both train and highway noise to reflect off. Facing the performance area south will help to avoid direct reception of the unwanted noise at the performance area allowing more auditable speech. The dense building material will help against sound transmission, and the curved walls will assist in a damping effect of the outside noise reflection by scattering the reflected noise in multiply directions.

ZMM
ARCHITECTS & ENGINEERS

E.L. ROBINSON
ENGINEERING

In addition to elements within the site context, the intended facility use is also a significant factor in the amphitheater design and primarily determines the overall scale of the structure. As a performance amphitheater, the stage area consumes more than half of the total square footage and must have a well thought out width to depth ratio for proper site lines, acoustics, and layering of backdrops and props. It is also important to understand how performers and props will move across the stage either detected or undetected. In the proposed design, there are large blind areas (off right and off left) with large openings at stage right and at stage left. These areas are adequate to stage props or instruments, provide space for production and performance crews, allow performers to quickly and safely enter and exit off stage, and are equipped with direct access to the dressing rooms. This arrangement will allow performers to exit from either stage left or right and reappear from stage right/left, upstage right/left, or downstage right/left. The proposed amphitheater will have two dressing rooms separated by a green room. Each dressing room will have its own restroom, lockers, changing area, and make-up stations. The simplicity and symmetrical layout of the design creates an easy to use facility with the flexibility to accommodate a variety of different events and performances.

Outside the intended use of the facility is one last factor that works hand-in-hand with the facility's intended use and context of the site. This particular factor relates to the overall community experience. The success of any performance or event can be greatly altered by the audience's perception and experience. As previously mentioned, the proposed design has incorporated the optimal layout and ordination in an effort to control the outside elements of solar glare and noise pollution which will improve the audience's experience. Not only will the design of the overhang and flared walls at the performance area block unwanted direct sunlight, but it will also perform as a natural amplifier to voice, music, or other sounds generated from the performance platform by reflecting the sound from the source on stage out into the audience, and away from the surrounding community. Furthermore, the non-parallel walls and flared ceiling will eliminate dead areas and hotspots of sound as it is reflected back into the audience.

Another design feature of the proposed amphitheater intended to enhance the community experience is the overall layout, and transition in elevation from the operations side of the facility to the performance side of the building. The circular plan disallows a back side to the building which allows sensitivity in its placement among adjacent building. As members of the community approach the amphitheater they arrive at the lowest height of the building for a more comfortable pedestrian encounter. This pedestrian friendly portion of the building faces the existing community and maintains a similar sense of scale in regards to the surrounding structures. Furthermore, the area of arrival is positioned along the existing roadway for easy and convenient access, and allows maximum use of green space for community members attending an event. As the community members move around the building, the scale of the amphitheater in elevation grows in grandeur until reaching the aperture of the performance area which creates a maximum viewing range and performance flexibility. One of the most unique qualities of an amphitheater is the direct connection between the actual structure and the outside. In this particular relationship the outdoor environment is truly a part of the building itself, and plays a major role in both the building's functionality and experience of the community. Therefore, it is of great importance that the facility be designed as a comprehensive whole which incorporates factors of both the built and natural environments.

The New Retreat at Glade Springs Resort

Multi-Unit Housing

ZMM
ARCHITECTS & ENGINEERS

LOCATION:
Daniels, WV

COMPLETION:
TBD

COST:
$249,000 - $269,000
(per unit cost)

CONTACT:
Mr. Doug Pauley
Encore Management Co.
1591 Washington Street, E
Charleston, WV 25311
304.343.3535

The New Retreat at Glade Springs is a gated community located in a wooded area near the 3rd hole of the Stonehaven Golf Course. Several townhouses had already been constructed on the site by a previous developer. The objective of the new developer was to provide a design that met his vision while also blending with the existing townhouses. Due to the wooded hillside site the new 2 and 3 bedroom units were designed to resemble a mountain lodge, while colors and material choices blended with the existing townhouses.

The material palette was selected to help define the lodge aesthetic and for ease of maintenance, and includes a stone veneer, prefinished composite siding and trim, as well as natural wood doors. The layout of the units was developed to provide end unit master suites with no second level, and a core that includes an open floor plan with a two story living room. Additional bedrooms and loft space are located on the upper level. Each unit has a distinct and well defined entry, while the overall grouping of townhomes resembles a mountain lodge.

ZMM's services included the preparation of a preliminary site design, as well as full architectural, engineering, and interior and lighting design services for a variety of units that could be configured in various manners to fit the site conditions. ZMM also assisted the client in determining a base finish, plumbing, lighting fixture, and appliance package for the units. Construction of Phase I of the townhouse development began in fall 2011.

The Boulevard at 2412
Multi-Unit Housing

ZMM
ARCHITECTS & ENGINEERS

LOCATION:
Charleston, WV

TOTAL SIZE:
158,140 SF

CONTACT:
Dr. Richard Howard
2412 Kanawha Blvd, East
Charleston, WV 25311
304.343.8805

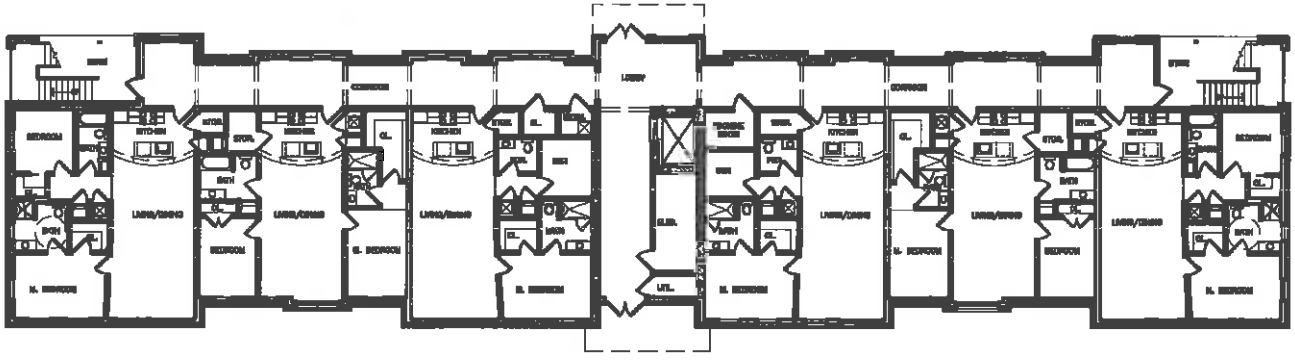
The Boulevard @ 2412 is a proposed mixed-use development on Kanawha Boulevard located in Charleston's East End. When completed, the development will include the construction of sixty new residential units and professional office space.

The scope of the development encompasses nearly one-half of the city block between Chesapeake Avenue, East Avenue, Kanawha Boulevard, and Washington Street East. Four of the twenty lots targeted for development fall within the East End Historic District.

As the owner's objectives included integrating the design into the East End Historic District, ZMM included the following features:

- The building massing has been broken down into a series of smaller volumes, making the overall plan more compatible with existing structures in the neighborhood. The design was developed with a goal of maintaining a residential scale along Kanawha Boulevard.

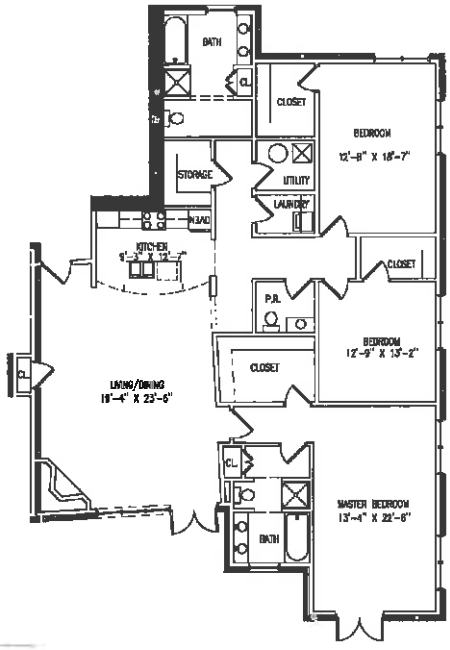
- Off street parking has been developed primarily to the rear of new structures, and will not be visible from Kanawha Boulevard.



The Boulevard at 2412
Multi-Unit Housing

- The architectural aesthetic of the new buildings is being developed in a way that reflects existing buildings (i.e. similar materials, geometries, setbacks, etc.). Additionally, the character of the overall elevation along Kanawha Boulevard will be improved as the new development completes existing "gaps" in the streetscape.

- The massing of the new development has been designed in a way that responds to and respects the massing of the adjacent residential properties. By using the existing adjacent properties to inform the aesthetic and material choices for the new project, the characteristics of the East End Historic District are incorporated throughout the new development. Architectural salvage will be undertaken at the site of the family home (2412) to preserve the distinctive framing members and terra-cotta roof tile. Where possible, these elements will be incorporated into the new development.



Yeoman Residence

New Pool House

ZMM
ARCHITECTS & ENGINEERS

LOCATION:
Marietta, OH

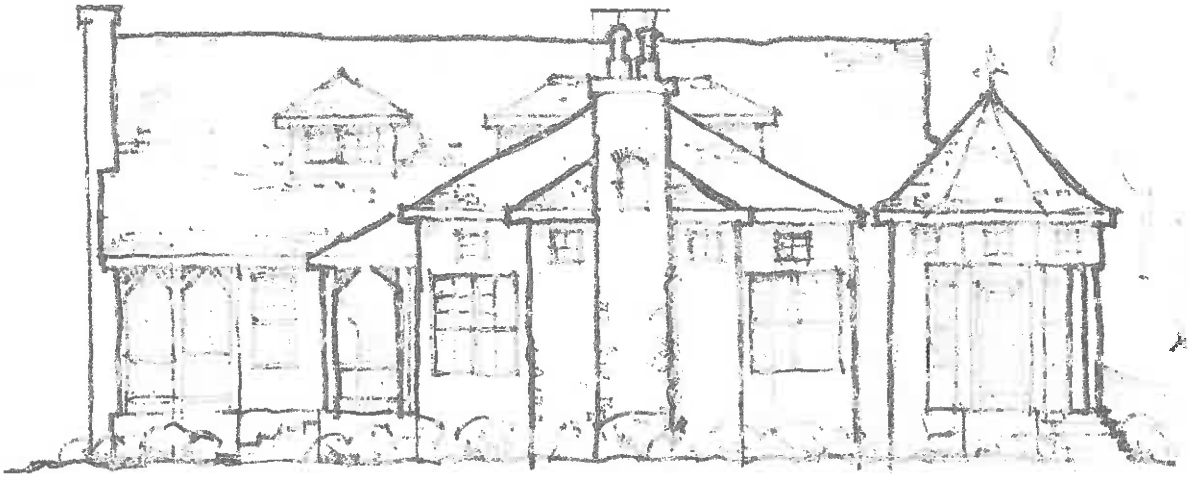
SIZE:
600 SF

COST:
Est. $45,000

COMPLETION:
July 2013

CLIENT:
Private Residence

An existing Rural Eastern Ohio residence was in need of a variety of additions and renovations. Phase one of the project included a pool house to provide amenities and screening for a new swimming pool. Phase two will be a large addition to the existing residence including a new great room and large dining area. Phase three will include the construction of a new garage featuring an office and work room overhead.



Greystone on the Cheat

Multi-Unit Housing

ZMM
ARCHITECTS & ENGINEERS

LOCATION:
Morgantown, WV

CONTACT:
2420 Cranberry Street
Morgantown, WV 26508
304.594.3840

Greystone on the Cheat is a 400 lot housing development located on Cheat Lake and Lakeview golf course outside of Morgantown, WV.

ZMM was responsible for the design of various lots, roads, utilities, covenants, and construction of the various phases of the 400+ acre site. ZMM also provided oversite of the design of the individual houses in the development.

Greystone on the Cheat has become one of the premier residential communities in the State of West Virginia.

References

Bradley Leslie, PE, Assistant Chief
WVDNR
State Parks Section
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1707 Coonskin Drive
Charleston, WV 25311
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