



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

# Request for Quotation

RFQ NUMBER  
**GSD126428**

PAGE  
**1**

ADDRESS CORRESPONDENCE TO ATTENTION OF:  
**KRISTA FERRELL  
 304-558-2596**

**\*709055254      304-342-0159**  
**ZMM INC**  
**222 LEE STREET W**  
**CHARLESTON WV 25302**

**DEPARTMENT OF ADMINISTRATION  
 GENERAL SERVICES  
 BUILDING 1 ROOM MB60  
 1900 KANAWHA BOULEVARD, EAST  
 CHARLESTON, WV  
 25305-0123      304-558-2317**

DATE PRINTED <b>01/09/2012</b>	TERMS OF SALE	SHIP VIA	F.O.B.	FREIGHT TERMS
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BID OPENING DATE: **02/09/2012**      BID OPENING TIME **01:30PM**

LINE	QUANTITY	UOP	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
0001	1	LS		906-07		
				<p><b>RECEIVED</b>  <b>JAN 13 2012</b>  <b>ZMM, INC.</b></p>		
				<p><b>RECEIVED</b>  <b>2012 FEB -9 AM 11:08</b>  <b>WV PURCHASING DIVISION</b></p>		
<p><b>A&amp;E SERVICES CAPITOL CAMPUS SECURITY PROJECT</b></p> <p><b>EXPRESSION OF INTEREST (EOI)</b></p> <p>THE WEST VIRGINIA STATE PURCHASING DIVISION FOR THE AGENCY, THE WEST VIRGINIA DIVISION OF GENERAL SERVICES, IS SOLICITING EXPRESSIONS OF INTEREST FOR ARCHITECTURAL AND ENGINEERING SERVICES FOR CAMPUS PERIMETER SECURITY MEASURES LOCATED ON THE WEST VIRGINIA STATE CAPITOL COMPLEX IN CHARLESTON, WEST VIRGINIA PER THE ATTACHED SPECIFICATIONS.</p> <p>TECHNICAL QUESTIONS CONCERNING THIS SOLICITATION MUST BE SUBMITTED IN WRITING TO KRISTA FERRELL IN THE WEST VIRGINIA STATE PURCHASING DIVISION VIA FAX AT 304-558-4225 OR VIA EMAIL AT KRISTA.S.FERRELL@WV.GOV.</p> <p>DEADLINE FOR ALL TECHNICAL QUESTIONS IS 01/25/2012 AT THE CLOSE OF BUSINESS.</p> <p>ANY TECHNICAL QUESTIONS RECEIVED WILL BE ANSWERED BY FORMAL WRITTEN ADDENDUM TO BE ISSUED AFTER THE DEADLINE HAS LAPSED.</p> <p>VERBAL COMMUNICATION: ANY VERBAL COMMUNICATION BETWEEN THE VENDOR AND ANY STATE PERSONNEL IS NOT BINDING. ONLY INFORMATION ISSUED IN WRITING AND ADDED TO THE EOI BY FORMAL WRITTEN ADDENDUM BY PURCHASING IS BINDING.</p>						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE Ad RV      TELEPHONE 304.342.0159      DATE 02/08/2012

TITLE VICE PRESIDENT      FEIN 55-0676108      ADDRESS CHANGES TO BE NOTED ABOVE

WHEN RESPONDING TO RFQ, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'

**GENERAL TERMS & CONDITIONS**  
**REQUEST FOR QUOTATION (RFQ) AND REQUEST FOR PROPOSAL (RFP)**

1. Awards will be made in the best interest of the State of West Virginia.
2. The State may accept or reject in part, or in whole, any bid.
3. Prior to any award, the apparent successful vendor must be properly registered with the Purchasing Division and have paid the required \$125 fee.
4. All services performed or goods delivered under State Purchase Order/Contracts are to be continued for the term of the Purchase Order/Contracts, contingent upon funds being appropriated by the Legislature or otherwise being made available. In the event funds are not appropriated or otherwise available for these services or goods this Purchase Order/Contract becomes void and of no effect after June 30.
5. Payment may only be made after the delivery and acceptance of goods or services.
6. Interest may be paid for late payment in accordance with the *West Virginia Code*.
7. Vendor preference will be granted upon written request in accordance with the *West Virginia Code*.
8. The State of West Virginia is exempt from federal and state taxes and will not pay or reimburse such taxes.
9. The Director of Purchasing may cancel any Purchase Order/Contract upon 30 days written notice to the seller.
10. The laws of the State of West Virginia and the *Legislative Rules* of the Purchasing Division shall govern the purchasing process.
11. Any reference to automatic renewal is hereby deleted. The Contract may be renewed only upon mutual written agreement of the parties.
12. **BANKRUPTCY:** In the event the vendor/contractor files for bankruptcy protection, the State may deem this contract null and void, and terminate such contract without further order.
13. **HIPAA BUSINESS ASSOCIATE ADDENDUM:** The West Virginia State Government HIPAA Business Associate Addendum (BAA), approved by the Attorney General, is available online at [www.state.wv.us/admin/purchase/vrc/hipaa.html](http://www.state.wv.us/admin/purchase/vrc/hipaa.html) and is hereby made part of the agreement provided that the Agency meets the definition of a Cover Entity (45 CFR §160.103) and will be disclosing Protected Health Information (45 CFR §160.103) to the vendor.
14. **CONFIDENTIALITY:** The vendor agrees that he or she will not disclose to anyone, directly or indirectly, any such personally identifiable information or other confidential information gained from the agency, unless the individual who is the subject of the information consents to the disclosure in writing or the disclosure is made pursuant to the agency's policies, procedures, and rules. Vendor further agrees to comply with the Confidentiality Policies and Information Security Accountability Requirements, set forth in <http://www.state.wv.us/admin/purchase/privacy/noticeConfidentiality.pdf>.
15. **LICENSING:** Vendors must be licensed and in good standing in accordance with any and all state and local laws and requirements by any state or local agency of West Virginia, including, but not limited to, the West Virginia Secretary of State's Office, the West Virginia Tax Department, and the West Virginia Insurance Commission. The vendor must provide all necessary releases to obtain information to enable the director or spending unit to verify that the vendor is licensed and in good standing with the above entities.
16. **ANTITRUST:** In submitting a bid to any agency for the State of West Virginia, the bidder offers and agrees that if the bid is accepted the bidder will convey, sell, assign or transfer to the State of West Virginia all rights, title and interest in and to all causes of action it may now or hereafter acquire under the antitrust laws of the United States and the State of West Virginia for price fixing and/or unreasonable restraints of trade relating to the particular commodities or services purchased or acquired by the State of West Virginia. Such assignment shall be made and become effective at the time the purchasing agency tenders the initial payment to the bidder.

I certify that this bid is made without prior understanding, agreement, or connection with any corporation, firm, limited liability company, partnership, or person or entity submitting a bid for the same material, supplies, equipment or services and is in all respects fair and without collusion or Fraud. I further certify that I am authorized to sign the certification on behalf of the bidder or this bid.

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**INSTRUCTIONS TO BIDDERS**

1. Use the quotation forms provided by the Purchasing Division. Complete all sections of the quotation form.
2. Items offered must be in compliance with the specifications. Any deviation from the specifications must be clearly indicated by the bidder. Alternates offered by the bidder as **EQUAL** to the specifications must be clearly defined. A bidder offering an alternate should attach complete specifications and literature to the bid. The Purchasing Division may waive minor deviations to specifications.
3. Unit prices shall prevail in case of discrepancy. All quotations are considered F.O.B. destination unless alternate shipping terms are clearly identified in the quotation.
4. All quotations must be delivered by the bidder to the office listed below prior to the date and time of the bid opening. Failure of the bidder to deliver the quotations on time will result in bid disqualifications: Department of Administration, Purchasing Division, 2019 Washington Street East, P.O. Box 50130, Charleston, WV 25305-0130
5. Communication during the solicitation, bid, evaluation or award periods, except through the Purchasing Division, is strictly prohibited (W.Va. C.S.R. §148-1-6.6).



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 Department of Administration  
 Purchasing Division  
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ADDRESS CORRESPONDENCE TO ATTENTION OF:  
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 304-558-2596

\*709055254 304-342-0159

**VENDOR**  
 ZMM INC  
 222 LEE STREET W  
 CHARLESTON WV 25302

**SHIP TO**  
 DEPARTMENT OF ADMINISTRATION  
 GENERAL SERVICES  
 BUILDING 1 ROOM MB60  
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 CHARLESTON, WV  
 25305-0123 304-558-2317

DATE PRINTED	TERMS OF SALE	SHIP VIA	F.O.B.	FREIGHT TERMS
01/31/2012				

BID OPENING DATE: 02/09/2012 BID OPENING TIME 01:30PM

LINE	QUANTITY	UOP	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
				ADDENDUM NO. 2		
				THIS ADDENDUM IS ISSUED TO PROVIDE ANSWERS TO ALL TECHNICAL QUESTIONS SUBMITTED IN ACCORDANCE WITH THE PROVISIONS OF THE ORIGINAL EXPRESSION OF INTEREST (GSD126428).		
				EOI OPENING DATE REMAINS: 02/09/2012		
				EOI OPENING TIME REMAINS: 1:30 PM		
				***** END ADDENDUM NO. 1 *****		
001	1	LS		906-07		
				A&E SERVICES CAPITOL CAMPUS SECURITY PROJECT		
				***** THIS IS THE END OF RFQ GSD126428 ***** TOTAL:		

**RECEIVED**  
 FEB 02 2012  
 ZMM, INC.

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE: *[Signature]* TELEPHONE: 304-342-0159 DATE: 02/08/2012  
 TITLE: VICE PRESIDENT FEIN: 55-0676608 ADDRESS CHANGES TO BE NOTED ABOVE

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V E N D O R	*709055254	304-342-0159
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	222 LEE STREET W	
	CHARLESTON WV 25302	


S H I P T O	DEPARTMENT OF ADMINISTRATION	
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BID OPENING DATE: 02/09/2012 BID OPENING TIME 01:30PM

LINE	QUANTITY	UOP	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
<p>INFORMATION ISSUED IN WRITING AND ADDED TO THE SPECIFICATIONS BY AN OFFICIAL ADDENDUM IS BINDING.</p> <p style="text-align: center;">             .....            SIGNATURE                .....            COMPANY                .....            DATE         </p> <p>NOTE: THIS ADDENDUM ACKNOWLEDGEMENT SHOULD BE SUBMITTED WITH THE EOI.</p> <p>REV. 09/21/2009</p> <p>BANKRUPTCY: IN THE EVENT THE VENDOR/CONTRACTOR FILES FOR BANKRUPTCY PROTECTION, THE STATE MAY DEEM THE CONTRACT NULL AND VOID, AND TERMINATE SUCH CONTRACT WITHOUT FURTHER ORDER.</p> <p>ANY INDIVIDUAL SIGNING THIS BID IS CERTIFYING THAT:            (1) HE OR SHE IS AUTHORIZED BY THE BIDDER TO EXECUTE THE BID OR ANY DOCUMENTS RELATED THERETO ON BEHALF OF THE BIDDER, (2) THAT HE OR SHE IS AUTHORIZED TO BIND THE BIDDER IN A CONTRACTUAL RELATIONSHIP, AND (3) THAT THE BIDDER HAS PROPERLY REGISTERED WITH ANY STATE AGENCIES THAT MAY REQUIRE REGISTRATION.</p> <p style="text-align: center;">NOTICE</p> <p>A SIGNED EOI MUST BE SUBMITTED TO:</p>						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE 	TELEPHONE 304-342-0159	DATE 02/08/2012
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TITLE VICE PRESIDENT	FEIN 55-0676608	ADDRESS CHANGES TO BE NOTED ABOVE
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ZMM INC  
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DATE PRINTED	TERMS OF SALE	SHIP VIA	F.O.B.	FREIGHT TERMS
01/17/2012				

BID OPENING DATE: 02/09/2012                      BID OPENING TIME 01:30PM

LINE	QUANTITY	UOP	CAT NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
				ADDENDUM NO. 1		
				TO ADD ATTACHMENT A TO THE ORIGINAL EXPRESSION OF INTEREST (GSD126428) WHICH WAS UNINTENTIONALLY OMITTED FROM THE ORIGINAL SOLICITATION.		
				ALSO, TO CLARIFY THE BID OPENING DATE AND TIME IN SECTION 1.16 SCHEDULE OF EVENTS		
				EXPRESSIONS OF INTEREST OPENING DATE IS FEBRUARY 9, 2012 AT 1:30 PM.		
				***** END ADDENDUM NO. 1 *****		
0001	1	LS		906-07		
				A&E SERVICES CAPITOL CAMPUS SECURITY PROJECT		
				***** THIS IS THE END OF RFQ GSD126428 ***** TOTAL:		

**RECEIVED**  
 JAN 19 2012  
 ZMM, INC.

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE <i>[Signature]</i>	TELEPHONE 304-342-0159	DATE 02/08/2012
TITLE VICE PRESIDENT	FEIN 55-0676608	ADDRESS CHANGES TO BE NOTED ABOVE

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S H I P T O	DEPARTMENT OF ADMINISTRATION	
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BID OPENING DATE: 02/09/2012 BID OPENING TIME 01:30PM

LINE	QUANTITY	UOP	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
				DEPARTMENT OF ADMINISTRATION PURCHASING DIVISION BUILDING 15 2019 WASHINGTON STREET, EAST CHARLESTON, WV 25305-0130		
THE EOI SHOULD CONTAIN THIS INFORMATION ON THE FACE OF THE ENVELOPE OR THE EOI MAY NOT BE CONSIDERED:  SEALED EOI  BUYER: KRISTA FERRELL-FILE 21  EOI. NO.: GSD126428  EOI OPENING DATE: 02/09/2012  EOI OPENING TIME: 1:30 PM  PLEASE PROVIDE A FAX NUMBER IN CASE IT IS NECESSARY TO CONTACT YOU REGARDING YOUR EOI: ----- 304-345-8144 -----  CONTACT PERSON (PLEASE PRINT CLEARLY): ----- ADAM R. KRASON -----						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE <i>ARV</i>	TELEPHONE 304.542.0169	DATE 02/08/2012
TITLE VICE PRESIDENT	FEIN 55-0676608	ADDRESS CHANGES TO BE NOTED ABOVE

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VENDOR FOR

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BID OPENING DATE: 02/09/2012		BID OPENING TIME 01:30PM		

LINE	QUANTITY	UOP	CAT NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
NO CONTACT BETWEEN THE VENDOR AND THE AGENCY IS PERMITTED WITHOUT THE EXPRESS WRITTEN CONSENT OF THE STATE BUYER. VIOLATION MAY RESULT IN THE REJECTION OF THE BID. THE STATE BUYER NAMED ABOVE IS THE SOLE CONTACT FOR ANY AND ALL INQUIRIES AFTER THIS EOI HAS BEEN RELEASED.						
EXHIBIT 10						
REQUISITION NO.: <b>GSD 12 6428</b>						
ADDENDUM ACKNOWLEDGEMENT						
I HEREBY ACKNOWLEDGE RECEIPT OF THE FOLLOWING CHECKED ADDENDUM(S) AND HAVE MADE THE NECESSARY REVISIONS TO MY PROPOSAL, PLANS AND/OR SPECIFICATION, ETC.						
ADDENDUM NO.'S:						
NO. 1 <b>ARK</b>						
NO. 2 <b>ARK</b>						
NO. 3						
NO. 4						
NO. 5						
I UNDERSTAND THAT FAILURE TO CONFIRM THE RECEIPT OF THE ADDENDUM(S) MAY BE CAUSE FOR REJECTION OF BIDS.						
VENDOR MUST CLEARLY 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						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE <b>ARK</b>	TELEPHONE <b>304-342-0159</b>	DATE <b>02/08/2012</b>
TITLE <b>VICE PRESIDENT</b>	FEIN <b>55-0676608</b>	ADDRESS CHANGES TO BE NOTED ABOVE

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GSD126428

RFQ No. \_\_\_\_\_

STATE OF WEST VIRGINIA  
Purchasing Division

**PURCHASING AFFIDAVIT**

**West Virginia Code §5A-3-10a states:** 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 the debt owed is an amount greater than one thousand dollars in the aggregate.

**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.

"Debtor" means any individual, corporation, partnership, association, limited liability company or any other form or business association owing a debt to the state or any of its political subdivisions. "Political subdivision" means any county commission; municipality; county board of education; any instrumentality established by a county or municipality; any separate corporation or instrumentality established by one or more counties or municipalities, as permitted by law; or any public body charged by law with the performance of a government function or whose jurisdiction is coextensive with one or more counties or municipalities. "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.

**EXCEPTION:** The prohibition of this section does not apply where a vendor has contested any tax administered pursuant to chapter eleven of this 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.

Under penalty of law for false swearing (*West Virginia Code* §61-5-3), it is hereby certified that the vendor affirms and acknowledges the information in this affidavit and is in compliance with the requirements as stated.

**WITNESS THE FOLLOWING SIGNATURE**

Vendor's Name: ZMM, Inc.

Authorized Signature: [Signature] Date: 02/08/2012

State of West Virginia

County of Kanawha, to-wit:

Taken, subscribed, and sworn to before me this 8<sup>th</sup> day of February, 2012.

My Commission expires 10/6, 2018.

**AFFIX SEAL HERE**

NOTARY PUBLIC [Signature]





Statement of Qualifications  
for:

Architectural & Engineering Design Services

*Capitol Campus Security Design*

RFQ# GSD126428





ARCHITECTS & ENGINEERS

February 9, 2012

Ms. Krista Ferrell, Buyer  
WV State Purchasing Division  
2019 Washington Street, East  
Charleston, WV 25305

**Subject: West Virginia Capitol Campus Security Design (GSD 126428)**

Dear Ms. Ferrell:

**ZMM Architects and Engineers** is pleased to submit the attached information to demonstrate our team's experience and capability to provide security and anti-terrorism design, crime prevention through environmental design (CPTED), and professional architectural and engineering design and construction administrative services for the Capitol Campus Security Design project. We are confident that the combined and specialized expertise of our team makes us uniquely qualified to provide services on this project.

**ZMM** is one of few full service A/E firms in West Virginia, and is noted for design excellence and client focus. **ZMM's** work on the State of West Virginia Capitol Campus began with the design of State Office Buildings 5, 6, & 7 in the late 1960's and includes current projects such as the Capitol Food Court, renovation of the 10<sup>th</sup> Floor of State Office Building #5, and updating the main electrical service for the Capitol Campus. **ZMM** also has specialized experience employing security and anti-terrorism standards including Unified Facilities Criteria, DoD Minimum Antiterrorism Standards for Buildings (UFC 4-010-01) through our work with the West Virginia Army National Guard.

**ZMM** will lead a team effort for this project that continues a legacy of successful collaboration between **ZMM** and Capitol Engineering, Inc. (CEI), firms who have previously worked together on the design of the Joint Interagency Training and Education Center (JITEC) Billeting Wing at Camp Dawson, the Jackson County AFRC, the Glen Jean AFRC, the Morgantown Readiness Center, the Logan-Mingo Readiness Center, and the CFMO Expansion. On each project the team worked closely with the West Virginia Army National Guard to employ stringent AT/FP requirements. Our team for this project also includes TranSystems, a national leader in security consulting for government entities.

Thank you for taking the time to review the attached information that details our team's history and philosophy, experience, qualifications, personnel, and references. We look forward to the opportunity to present our ideas for this project, and appreciate the opportunity to be considered for this important assignment.

Respectfully submitted,  
**ZMM**

A handwritten signature in blue ink, appearing to read "Adam R. Krason".

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

**A&E Services for West Virginia State Capitol Complex  
Capitol Campus Security Design  
RFQ# GSD 126428**

**Cover Letter**

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Organizational Chart  
Project Schedule  
Professional Services
  
- **Section #4: Demonstrated Similar Experience**  
Relevant Projects  
Awards and Honors  
References

# Project Approach: Capitol Campus Security Design

## Project Team and Management

ZMM will coordinate the effort of the project team throughout all phases of the assessment validation, design, and construction administrative process. TranSystems, a firm with nationally recognized experts in will lead the validation effort, while ZMM and CEI will provide design services for building, civil, and landscape design. Our team is uniquely qualified to provide these specialized services to the State of West Virginia, and we offer the following project approach for your review.



## Project Approach

### Phase I – Validation

The assignment validation will begin with a request for information and documentation such as any existing threat or risk assessment reports, and/or analysis, including the suggestions for perimeter security developed by the General Services Division, the Division of Homeland Security and Emergency Management, and the West Virginia National Guard (including the recommendations of the Joint Interagency Training and Education Center – JITEC). The team will review and validate the assessments that have been completed to date.

Following the review the team will conduct an internal kickoff meeting to discuss project objectives, scheduling, and available documentation. On-site interviews and campus assessment will be scheduled with the State Project Manager. The on-site visit will begin with a Kick-off Meeting with the consultant's project team and stakeholders in the Capitol Campus security program (as determined by the State, but inclusive of General Services Division, Protective Services, Homeland Security and Emergency Management, the WVNG, and the JITEC). The objectives of the meeting would be to:

- Confirm the assignment objective(s)
- Confirm scope of the assignment
- Discuss assignment restrictions
- Confirm the proposed/desired deliverables
- Confirm the assignment schedule
- Establish communication protocols
- Facilitate discussion of areas of concern and threats as well as the campus culture in regards to security and protective measures, such as maintaining the "Park Like" atmosphere and accommodating festivals.
- Review suggestions made by the Agency, Division of Protective Services, and Division of Homeland Security and Emergency Management, and the WV National Guard for perimeter protection
- Determine pending construction projects that could affect campus security.

Following the kickoff meeting, members of the project team, which will include the design team (ZMM, CEI, TranSystems) and State personnel, will validate the existing threat assessment and review the nine (9) areas of concern. The validation will include the following steps:

1. Review the existing threat assessment for the campus completed by the JITEC. Physically review and validate the concerns identified.
2. Conduct one-on-one interviews to verify that all major security concerns have been identified.
3. Verify that the assessment includes an evaluation of both current vehicular access and the future needs for vehicular access.
4. Review recommendations for security systems technology, infrastructure, and operations that will impact or integrate with perimeter security measures.
5. Evaluate campus plans, buildings, and landscaping to match existing aesthetic.

During this time, the assessment validation team would physically review the campus areas for improvement as identified by Addendum #1 to the RFP. The review will evaluate all included areas for their openness, landscaping, lighting, use of security technology, adherence to Crime Prevention through Environmental Design (CPTED) concepts, and ability to restrict vehicular or pedestrian access where appropriate. The assessment validation will typically include a comprehensive examination of all physical security conditions affecting campus site security, including positive and negative influence from an environmental security viewpoint, and review of the operations including, but not limited to:



- Barriers
- Vehicle approaches
- Video surveillance systems
- Electronic access systems
- Control systems and centers
- Egress, ingress, and circulation
- Security lighting
- Streetscape and landscape
  - Bollards / planters
  - Curbs
  - Vehicle barriers
  - Signage and ground rules
  - Gates
  - Lightpoles and flags
  - Plazas and fountains
  - Benches, trash receptacles
  - Bike racks
  - Street and parking setbacks
  - Trees, shrubs and groundcover inventory



The assessment validation would be conducted with consideration of likely threats to each included perimeter access point which would include vehicle types and speeds vehicles could be travelling when attempting to breach the perimeter access points. The threat assessment validation would include a review of incident reports provided by the Protective Services Division, , interviews with site personnel, and other sources of threat data for government buildings such as the report by the Joint Interagency Training and Education Center of the National Guard (JITEC), DHS Office of Intelligence Analysis' "Plots and Attacks Targeting Government Facilities in the United States" and the Government Facilities Sector Assessment by the Homeland Infrastructure Threat and Risk Analysis Center (HITRAC).

In addition to suggestions made by General Services Division, Protective Services Division, Division of Homeland Security and Emergency Management, and the WV National Guard, the assessment validation and subsequent design would take into account best practices for site and building protection to include vehicular access as contained in various authoritative sources such as:

- FEMA 426, Reference Manual to Mitigate Terrorist Attacks Against Buildings
- FEMA 430, Site and Urban Design for Security - Guidance Against Potential Terrorist Attacks
- US General Services Administration "The Site Security Design Guideline"
- The Interagency Security Committee "Physical Security Criteria for Federal Facilities"
- Unified Facilities Criteria, DOD Minimum Antiterrorism Standards for Buildings (UFC 4-010-01)
- Unified Facilities Criteria, Selection and Application of Vehicle Barriers (UFC 4-022-02)

The team will use digital cameras and voice recorders to document the assessment validation, and will conduct the facility site visits during both normal business hours and during off-hours. Surveying during both periods is critical because conditions and the environment change significantly based on activity levels and visibility, and security lighting, a key element of the physical security program, must be reviewed after nightfall for a proper evaluation to be conducted.

A Design Report will be developed after the assessment validation is completed. The report will include:

1. Threat Assessment Validation
2. Basis of Design Report - description of the recommended overall protection concept, including recommended physical improvements to the campus.
3. Rough Order of Magnitude (ROM) investment costs for implementation.
4. Implementation plan (time phasing) for reaching full build-out prioritized by risk and projected lead time for individual projects .
5. Schematic site drawing with proposed site end-state of security improvements as well as schematic documents indicating proposed site improvements.
6. Renderings and/or photos of similar installations.

The Design Report will be submitted to The General Services Division for review and comment. After time for adequate review, we would attend and facilitate a review of the report on site to respond to any questions and to collaborate regarding the report and cost estimates. Following the review, a final report will be completed with changes and comments from General Services incorporated and the design effort will commence.

### Phase II – Design

The design phase is proposed in two (2) sub-tasks. These critical phases include developing the additional level of complexity required to produce a detailed set of construction documents for the proposed improvements. **ZMM** will coordinate the integrated design effort of the project team throughout this phase of the project. Detailed site and landscaping plans will be developed that illustrate the security improvements, traffic changes, coordinate utilities, and also address any site phasing concerns.



Architectural and engineering details and specifications will be developed that will convey all recommended improvements to the Capitol Campus. At the end of both phases, the project will again be reviewed with the Owner prior to proceeding to the next phase. Once the construction document phase is complete, plans will be submitted to all regulatory authorities to complete the permitting process.

Details of the two sub-tasks include:

1. Design Development – This task will include:
  - a) Drawings with recommended device locations shown.
  - b) As-built documentation of campus and documentation of proposed improvements.
  - c) Identify space allocations for recommended monitoring and control equipment.
  - d) Interconnection plan defining network impacts.
  - e) Draft Specification, front-end sections, to be developed and submitted to General Services for review prior to the bidding process.
  - f) Draft Specification, system performance sections. Product detail will be based on performance

requirements.

- g) Preliminary Cost Estimate.
- h) Master Site and Landscape Plans
- i) On-site meeting to review documents with General Services.
- j) Updated cost estimate and schedule.

2. 100% Final design – This task will include:

- a) Final device locations.
- b) Final power and load calculations.
- c) Installation details and programming schedule for existing system migration of database and existing (to remain) devices.
- d) Final plans detailing any required site improvements and building related upgrades.
- e) Final performance specifications for the security and electrical requirements.
- f) Final landscape plans, planting schedule and planting details.
- g) Final cost estimate and updated project schedule to include phasing plans developed with the General Services Division.
- h) On-site meeting to review documents with General Services.





# Firm/Team Qualifications

## Capitol Campus Security Project



A. Firm Contact: Adam R. Krason, AIA, NCARB, LEED-AP  
ZMM, Inc.  
222 Lee Street, West  
Charleston, WV 25302  
304.342.0159  
[ark@zmm.com](mailto:ark@zmm.com)

Signature

B. ZMM / TranSystems / CEI Project Team (Please find resumes attached):

Name	Role
Adam R. Krason, AIA	Principal, Project Manager
Ronald D. Heil, CPP.CSC. CHS	Senior Security Consultant/Associate Project Manager
Todd G. Libengood, PSP	Security Systems Specialist
Jim Elder, CSP, PSP	Senior Security Consultant
Bob Doeffinger, PE	Engineer/Project Manager
Robert Fuller, PE	Site Design & Civil Engineer
Mary Jo Cleland, PE	Civil Engineer
Steve Hedrick, PE	Structural Engineer
Scot Casdorff, PE	Electrical Engineer
Mike Abernethy, IESNA	Electrical and Lighting Design
Nathan Spencer, AIA	Architect
Glenn Savage, CSI-CDT	Construction Administrator

- C. The work for this project will be performed by ZMM employees working with TranSystems and CEI as consultants.
- D. As a full service architecture and engineering firm, ZMM is uniquely qualified to provide design services on this campus security project. Please note that examples of our experience providing design services on similar projects can be found in Section 4. ZMM, TranSystems, and CEI are capable to handle the design services as well as campus security/landscape design for the State Capitol of West Virginia.
- E. ZMM and our consultants understand and agree that any and all work produced as a result of the contract becomes the property of the State of West Virginia General Services Division and can be used or shared as deemed appropriate by the Owner.
- F. ZMM has been providing design services in the State of West Virginia for more than fifty years. During this time our work has regularly conformed to all local, State, and Federal regulations. Additionally, we regularly coordinates our work during the design phase with the State of West Virginia Fire Marshal to help ensure compliance with NFPA 101 and Title 87.

# History and Philosophy of ZMM



LOCATION:  
222 Lee Street, West  
Charleston, WV

CONTACT:  
Phone 304.342.0159  
Fax 304.345.8144  
www.zmm.com

## History

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



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

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

## Community Support

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

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





LOCATION:  
Project Office  
615 Epsilon Dr.  
Suite 200  
Pittsburgh, PA

Phone 412.782.7810  
Fax 412.963.1656

## **History**

TranSystems Corporation has provided comprehensive security consulting and engineering services for government entities, as well as educational and cultural institutions, corporate headquarters and office complexes, industrial and manufacturing centers and transportation clients, for more than 30 years. In total, TranSystems comprises nearly 1,000 professionals in 40 offices throughout the United States. These professionals are committed to providing high-quality services in architecture, engineering, planning, real estate, management consulting services, security engineering and consulting.

TranSystems' consulting services include: CTPED analysis, assessment of existing programs, design and specification of new or renovated physical and electronic security measures, review of workplace violence prevention programs and other measures that assure the safety and security of our clients.

## **Security meets engineering**

The implementation of security measures requires specialized engineering expertise. Our full-service security engineering and design department complements our comprehensive risk assessment capabilities with first-class design development, installation specifications, bidding requirements, construction documents and project management services.

## **Non-proprietary methods from leading experts**

To ensure unbiased, cost- and time-efficient assessments, TranSystems uses non-proprietary consulting and engineering methods, including those developed by the American Society for Industrial Security (ASIS); General Services Administration (GSA); Interagency Security Committee (ISC); Federal Emergency Management Agency (FEMA).

## **Total Security Solutions**

TranSystems specifies physical security programs and protection systems for new and renovated facilities, including:

- Government and municipal
- Public facilities including cultural centers, historic buildings, libraries, and museums
- Hospitals and healthcare systems
- Warehouse and distribution centers
- Corporate headquarters and office complexes
- facilities
- Industrial facilities including chemical, manufacturing, and water treatment plants
- Transportation operations including airports, bus, rail, subway, and parking facilities

# History of Capitol Engineering, Inc.

The logo for Capitol Engineering, Inc. (CEI) consists of the letters "CEI" in a white, bold, serif font, centered within a dark blue rectangular box with rounded corners.

LOCATION:  
1206 Kanawha Blvd., E  
Charleston, WV 25301

CONTACT:  
Phone 304.344.0720  
capitolengineering.com

## History

Capitol Engineering is a locally owned consulting engineering firm founded in 1999. CEI has steadily grown since its inception with three employees. CEI possesses in-house services in civil, environmental and mining engineering, contract administration, and surveying and mapping. Our staff is made up of two Professional Engineers, a Professional Surveyor, Project Engineers and Scientists, CAD Operators, Technicians, and administrative personnel.

Our client base is comprised of contractors, architects, engineers, developers, private industry, and federal and state agencies. Capitol Engineering, Inc. (CEI) proposes to perform civil engineering and surveying services for the West Virginia National Guard to develop engineering plans and specifications for the Jackson County Readiness Center.

We have experience planning, designing, specifying, preparing contract documents, bidding and performing contract administration on many types of military facilities including Readiness Centers, Airfields, Training Areas and Ranges. Our experience and resources give us the ability to handle both complex and routine projects.

CEI offers the highly specialized experience, attention to minute detail, and the unparalleled level of personal client support provided by a small boutique firm. We are particularly attractive because:

- Our management, engineering and professional staff has a combined total of over 120 years of experience – much of it acquired while working on military facilities.
- Staff has participation and completion of 30 National Guard projects in West Virginia.
- Management team has 30+ years and over 50 projects total specialized experience providing timely, cost effective construction documents for military facilities.
- Experience to successfully handle all design situations and problem types anticipated to occur under this contract.
- Construction and Facilities Maintenance Office satisfaction with prior work/projects performed by key staff members.



## Role

Architect, Principal, Business Development

## 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

### West Virginia Army National Guard, Joint Interagency Education and Training Center, Camp Dawson, 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

## Education

Bachelor of Architecture, The Catholic University of America, 1998

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

## Employment History

2007 - Present, Vice President, 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
- WV Qualification Based Selections Council, President-Elect, 2011
- Leadership WV 2010
- Charleston Rotary
- West Side Main Street, Board of Directors 2008-2010
- City of Charleston Land Trust 2008 - 2010
- West Side Elementary School LSIC, Volunteer

also responsible for managing the production effort for the billeting (hotel) expansion, which increased the total billeting capacity at the JITEC to 600 rooms. The project is aiming for LEED Silver Certification.

**Construction and Facilities Management Office Expansion, West Virginia Army National Guard, Charleston, WV.** Mr. Krason was responsible for the programming, architectural design, and project management of the office expansion. The project included the renovation and addition to an existing pre-engineered metal building. The design, which was honored with a 2008 AIA Merit Award, focused the client's resources on a new entry and corridor that separated the existing office space from the addition.

**Bridgemont Community and Technical College Davis Hall Renovation, 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.

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

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

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

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

#### **Awards and Acknowledgements:**

AIA Honor Award (2011): WVARNG Joint Interagency Training and Education Center (JITEC)

AIA Honor Award (2011): State Office Building #5, 10<sup>th</sup> Floor Renovation

AIA Merit Award (2009): WVARNG Construction and Facilities Management Office

Organizer: Making the Business Case for Sustainability Conference, University of Charleston (2010)

Speaker: West Virginia Sustainability Summit, Discover the Real West Virginia Foundation (2010)

Speaker: Sustainable Schools West Virginia Summit, WVU (2009)

Article: The West Side Needs Structural Help, Charleston Daily Mail, January 2005

Article: Memorial to Vertical Towers: A Critical Review, West Virginia Executive, Summer 2004

# Ronald D. Heil, CPP, CSC, CHS



## Role

Senior Security Consultant

Ron Heil is an Assistant Vice President and the Team Leader of TranSystems' Security Consulting operations. He has direct responsibility for TranSystems' security consulting program analysis and development, standards, specifications, and project management. Ron has over 29 years of security and emergency planning, assessment, and program management-related experience in the public and private sectors.

He is Board Certified in Security Management and has been designated a Certified Protection Professional (CPP) by the American Society for Industrial Security, a Certified Security Consultant (CSC) by the International Association of Professional Security Consultants (IAPSC), and has been Certified in Homeland Security (CHS) by the American College of Forensic Examiners Institute. He currently serves as a board member of the IAPSC and chairs the certification board. Previously, he served as an Air Force Officer in the Security Forces managing physical security, vulnerability assessment, asset protection, information/technology protection, law enforcement, antiterrorism, disaster incident response, and force protection programs.

Ron is a recognized physical security, antiterrorism, and emergency expert. He has conducted threat, risk, and vulnerability assessments and developed security program and physical security improvement plans at hundreds of locations across the country and internationally. He is experienced in a broad range of business and market sectors to include transportation, healthcare, chemical manufacturing and distribution, telecommunications, energy, municipalities, justice and corrections, higher education, DoD, and cultural properties.

## Project Experience

### State of Utah; Utah

Ron assessed the perimeter security of State Courthouses located in Utah's four most populous counties. The assignment included: on-site evaluations of the perimeter security systems, locking, and security screening stations at 12 courthouses; review of the training provided to the County Sheriff Officers and Deputies providing perimeter security; determination of training required to provide perimeter security; cost/benefit study to determine if a contracted security force or force of State-employed security officers could provide similar services as the County Sheriffs departments at reduced cost. The results of the

## Education

B.A., Administration of Justice,  
University of Pittsburgh, 1982

M.S., Management, Troy State  
University, 1987

## Certifications

Certified Protection Professional (CPP)  
Certified Security Consultant (CSC)  
Certified in Homeland Security (CHS)

## Affiliations & Memberships

American Society of Industrial Security  
International

International Association of Professional  
Security Consultants

American College of Forensic Examiners  
Institute

Military Officer's Association of America

## Years of Experience

29

## Years with Firm

9 years

assignment were summarized in a written report and a presentation given to the Judicial Review Committee.

### **St George County, Utah**

Mr Heil assisted with the design of a new state courthouse for St George County, Utah. He reviewed the courthouse design at each state of completion for compliance with CPTED concepts, best practices for courthouse design and layout, and for compliance with a draft state security design standard for courthouses. The drawing reviews were summarized in comprehensive written reports with instances of non-compliance noted and were accompanied by drawing mark-ups for correction or implementation.

### **Kansas City, Missouri**

Ron was the project manager for an assessment of the security program for the City of Kansas City Missouri. The project includes performing a comprehensive security assessment of City-owned buildings; a review of security procedures; recommendations for the utilization, management, and organization of the security force; and development of a plan to time-phase recommendation implementation. The project also included developing a security plan template suitable to be customized by individual buildings.

### **County of Erie; New York**

Ron managed a county-wide security assessment program that included the 16-story County Office Building, County Courthouse, Family Courts, City of Buffalo Courthouse, Buffalo City Hall, Law Library, facilities of the New York State Supreme Court, healthcare facilities, maintenance centers, community college campuses, and a convention center. The scope included interviews with key personnel, reviews of security screening operations, and development of recommendations to enhance the security program.

### **County of Sussex; New Jersey**

Ron performed a county-wide security assessment of the justice center, jail, sheriff's department, prosecutor's office, and administrative, operational, and maintenance facilities; ranked corrective measures to screening operations, access control, and physical security; and tied each to an item of risk identified in the assessment and developed recommendations for corrective measures, and strengthening security.

### **Boulder County, Colorado**

Ron conducted an assessment of the effectiveness of the security at county facilities and developed a risk-based prioritized list of recommendations to achieve desired security goals and to guide future decisions regarding the application of security resources. The assessed facilities included the Justice Center, three district courthouses, office buildings, medical facilities, maintenance centers, county fairgrounds, and parks and recreation areas. An additional phase of the assignment included development of security policies and policies for county facilities.

### **City of North Las Vegas; Nevada**

Ron developed a Terrorism Annex for the City of North Las Vegas Emergency Operation Plan and was a leader in a risk assessment of security measures and critical infrastructure of the City to include the City Hall, Municipal Court, Police Department, engineering and maintenance facilities, library, parks and recreation centers, as well the City's retail utility operations. The Terrorism Annex included phased implementation of increased security measures in response to increases in the threat, either identified by the Department of Homeland Security through the Threat Advisory systems or in response to local intelligence of an increased threat.

### **Nashville Metro; Tennessee**

Ron was the Project Manager in a security audit of buildings managed by General Services that included the Criminal Justice Center, multiple administrative centers, a service center, library, and parking lots.. The audit included a review of existing security measures in place: procedural, electronic, and physical as well as a review of the training that was being given to security officers to determine its effectiveness for the tasks the officers were expected to perform. The results of the audit were documented in a written report and recommendations for improvement were provided.



# Todd G. Libengood, PSP



## Role

Security Systems Specialist

Mr. Libengood has more than 20 years of experience as a Security System Designer, IT Network Designer and Implementation Project Manager. He has direct responsibility for security planning, design, specification development, cost estimation, contractor selection, and implementation support of security installations.

Mr. Libengood is TranSystems Team Leader for the Security Design and Engineering Team. His duties include supervision, mentoring, training, standards and workload distribution. Todd has his pulse on each project and has duties from production staff to project manager.

Mr. Libengood has been responsible for the system assessment, design and implementation of security and fire systems at more than 100 commercial, industrial, municipal, transportation, K-12, higher education and private and public business locations throughout the United States and internationally. Included in the designs of security systems, he has designed extensive video transmission security systems over LAN and WAN networks, utilizing an array of different transmission methods. He has designed cabling and conduit systems for security and access control, intercom, video, fire, and parking control systems. He has designed and produced construction drawings for new and renovated security monitoring, control and command centers. He has directed the development of drawings, specifications, bidder requirements defining installation and operation needs for security, fire protection and communication systems for over 250 facilities.

## Project Experience

### State of West Virginia Capitol Building (Number 3), West Virginia

Todd was the TranSystems project manager for an assign to develop a security needs analysis report with security concept for the historic West Virginia Capitol Building (Number 3) based on best practices for similar facilities and sound use of Crime Prevention Through Environmental Design principles. Facility changes needed to take into consideration preserving historic elements and appearance of the building. The project included a Risk and Threat assessment, Review and evaluation of Architect's conceptual design, Kick-off meeting and planning session with the architect and State Protective Services, and Development of conceptual design narrative with rough draft of estimated security measures cost.

## Education

A.S., Specialize Technology  
Triangle Tech, 1991

## Certifications

Professional Security Professional

## Affiliations & Memberships

American Society for Industrial Security  
NFPA  
BICSI

## Years of Experience

20

## Years with Firm

20

### **City of Boca Raton, Florida**

Mr. Libengood, serving as a security systems engineer, developed the master plan of security systems for a new city-wide video solution including a central command center called a Fusion Center. The project included the assessment of existing systems throughout the city and configuration of a new city-wide Office of Group Benefits (OGB) network solution. The existing systems to be integrated into the city-wide video monitoring solution included the traffic video monitoring cameras at key intersections, city building independent systems, and planning for new wireless cameras to a possible Motorola Canopy solution to a city network node at key city building locations. The master plan developed by the TranSystems team included possible space allocation options and layout for the city centralized Fusion Center and concepts for network impacts of the total centralized city-wide monitoring location. The plan included the pros and cons of a third-party overlay software program to allow the existing systems to remain and share Software Development Kits (SDKs) and custom programming for older systems to a new Graphic Information System (GIS) for a city wide video camera location map. The Master Plan also address the policies required for private business's to opt in to allow the city police and emergency services to access their private systems to monitor specific video cameras.

### **County of Erie, New York**

Todd served as system designer for design and specification of physical security measures for County facilities, including the 16-story County Office Building, County Courthouse, Family Courts, City of Buffalo Courthouse, Buffalo City Hall, healthcare facilities, maintenance centers, community college campuses and a convention center. The assignment included outlining an implementation plan, estimate of budgetary costs, identification of potential manufacturer partners, characterization and qualification of the manufacturers and their integrator networks and review and selection of the partner network. He also assisted in the development of installation and operational guidelines, installation and equipment standards, programming standards and naming conventions.

### **National Harbor, District of Columbia**

Todd, as a system designer, assisted with the development of the security program for this multi-use, \$2 billion, 300-acre, mixed-use development on the Potomac River at Washington D.C. The National Harbor project will ultimately include more than 300 acres of land and 200 acres of water, miles of infrastructure and millions of square feet of commercial, retail and residential space. Todd worked on the design and specification of video surveillance and access control system, contractor selection, and implementation support for the public areas of the site including parking garages, common spaces, and offices and residential buildings. The project ultimately included more than 150 cameras, interfacing building fire alarm systems, and developing the design of a proprietary security monitoring and command center.

### **Westinghouse New Corporate Headquarters**

Todd designed security measures for a new 1,000,000 sqft Westinghouse campus that includes four (4) buildings and large parking lot. The project includes IP Video Systems, Entry Controlled revolving doors, optical turnstiles, customized security desks, door hardware coordination, conduit infrastructure and implementation of a dedicated security network. He is currently providing construction administration for the implementation. After the systems are installed he will perform the final acceptance test.

Todd also serves as Westinghouse's preferred security consultant / engineer for all Westinghouse sites. This role includes an expert consultation on security related items from mechanical keying schedules to guidance on new physical security additions or modifications.

### **Goodyear Tire and Rubber Global Headquarters, Akron, OH**

Todd is the lead security designer for the security design of a new, seven story, 639,000-square-foot Global Corporate Headquarters for Goodyear Tire and Rubber Company. The assignment began with development of a security master plan. The security systems design includes IP Video Systems, entry controlled revolving doors, optical turnstiles, customized security desks, door hardware coordination, and conduit infrastructure. The assignment also includes design of the Goodyear Global Security Communications and Control Facility and the security design of an adjoining 2,900-space parking structure.

# Jim Elder, CPP, PSP



## Role

Senior Security Consultant

Mr. Elder is an Assistant Vice President and Senior Security Consultant with over forty years experience in the security industry. He is Board Certified in Security Management and has been designated a Certified Protection Professional (CPP) and a Physical Security Professional (PSP) by the American Society for Industrial Security.

After initial military experience, Mr. Elder became a member of the University of Louisville, Department of Public Safety, where he was involved in the design and construction process as manager of Technical Services, and a member of the University Facilities Design and Construction Technical Advisory Group. Responsibilities included security system design, standards development and ongoing operations of the largest integrated security systems in the State of Kentucky and one of the most innovative systems in the United States at the time. During his tenure, Mr. Elder was the first to install a large-scale campus security video system in the State and the first in the country to deploy long range point-to-point microwave for security video image transmission and control. He was also responsible for the design and implementation of the police radio and Computer Aided Dispatch operation for the Public Safety Department.

Mr Elder was a graduate of the National Crime Prevention Institute, including its first graduating class, and later its basic and advanced CPTED (Crime Prevention Through Environmental Design) courses. Mr. Elder began aggressively pursuing his role in the private security-consulting arena, eventually becoming the Institute's Physical and Electronic Security Specialist. Also during this time, he became a staff security consultant for Campus Crime Prevention Programs, Aegis Protection Group (later forming Aegis Security Design) and assisted in the development of the first statewide crime prevention program training for law enforcement officers in the State of Kentucky. Using Federal grant funds, he developed a program for training of police officers from five police departments in the use and deployment of stake out alarm systems. In the security design field, he became involved in security planning, CPTED and systems design in the early 80's with mentorship from Tim Crow, now known as the "Father of Modern CPTED".

He is a well-recognized expert with years of research experience in the area of physical and electronic security issues, with particular emphasis on security system design. He is regularly sought out by manufacturers to provide technical reviews and commentary as it relates to new products.

## Education

B.S., Police Science and Administration  
University of Louisville

A.A. Management University of  
Kentucky

Administrative Officer's Course,  
Southern Police Institute, University of  
Louisville

## Employment History

2003 - Present, Architect, Project  
Manager, ZMM

2001 - 2003, Architect, Director of  
Design, WV Architecture Firm

1997 - 2001, Project Architect, Associate,  
FL Architecture Firm

1992 -1997, Architect, ZMM

## Civic Affiliations

- Certified Protection Professional;  
American Society of Industrial  
Security (ASIS)
- Physical Security Professional (PSP);  
American Society of Industrial  
Security
- Certified Police Instructor;  
Kentucky Department of Justice,  
Bureau of Training

## Years of Experience

42 Years, 26 in Campus Crime  
Prevention Programs:

## Years with Firm

11 years

## **Project Experience**

### **Commonwealth of Kentucky, Capitol Campus Security Project and Related Projects**

Mr Elder was commissioned to conduct a detailed study of security conditions involving the State Capitol campus in Frankfort, Kentucky. The study involved a number of large office buildings, including the Governor's Office, and a 1200 vehicle parking structure. The resulting master plan organized recommendations categorized by implementation schedule (short, intermediate and long term). ASD was later commissioned for design services for the new Department of Transportation building, the Kentucky State Police Regional Crime Laboratory and a new State administrative building (later tabled due to lack of funding) during which the long term recommendations (i.e. single enterprise access control solution and CPTED strategies considered at the program design stage) were implemented.

### **City of Ames, Ames Iowa**

The City of Ames Iowa, operating under a Federal grant, retained Mr Elder's services to conduct a vulnerability assessment of facilities including city hall, water treatment, county golf courses, power cogeneration plant, police and four fire department facilities and jail. The resulting report was used to develop a long range plan for security of City-owned facilities.

### **Time Warner Center, New York City, New York**

Mr. Elder served as the lead security consultant and engineer for the Time Warner spaces of the \$1.8 billion Time Warner Center in Manhattan. Responsibilities included risk and vulnerability assessment, security program design, security system design, construction and implementation management, and commissioning support. Mr. Elder's expertise led to a unique "building within a building" design, ensuring positive access control onto Time Warner property from all public and private spaces through the application of CPTED design principals reinforced by appropriate physical and electronic security features. Design scope included electronic access control, video surveillance, intrusion/duress, doors and hardware, positive entry control, system infrastructure and a command and control center. The system designed included over 400 cameras, controls applied to 450 doors and 8 control centers, including a large Security Operations Center in the Time Warner Center intended for central monitoring and control of all security systems.

### **Lincoln Center for the Performing Arts, New York City, New York**

Mr. Elder is the lead security consultant and project manager for the Lincoln Center Development Project, a \$750 million renovation of the iconic Lincoln Center for the Performing Arts in New York. Responsibilities have included an All-Hazards risk and vulnerability assessment, CPTED plan review, security master planning and security system design and implementation management. Design scope included physical barriers, electronic access control, digital video surveillance and unique campus infrared lighting plan that permitted greater creative latitude for esthetic lighting, while still allowing adequate illumination for video imaging. The initial plan (later reduced due to funding restrictions then restored with grants to the NYPD) also called for provisioning access to video images, camera control and recording by the New York Police Department for use in crowd management, traffic control and critical incident assessment and management.

### **Waterview, Rosslyn, Virginia**

Mr. Elder was the lead security consultant for Waterview, a 1.1 million square foot development in Rosslyn, VA, just outside Washington, DC. Headquarters of the Corporate Executive Board (CEB). Considerable attention was afforded to the application of CPTED principles in the development of the security plan for the facility utilizing architectural strategies in developing a reasonable transition between the CEB and retail, hotel and residential spaces.



## Role

Engineering Principal

## Professional Registrations

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

As, 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 Education and Training Center, Camp Dawson, WV.** Mr. Doeffinger was responsible for the mechanical engineering design of the 600 room billeting expansion to the Regional Training Institute at Camp Dawson. The project is aiming for LEED Silver Certification. The project is served by a 4 - pipe hot and chilled water system with an energy recovery ventilation system.

**The Plaza at King of Prussia, Pittsburgh, PA.** One of the largest retail centers in the east. Mr. Doeffinger has performed

## 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, Bridgmont Community and Technical College
- City of Pt. Pleasant, WV – 2<sup>nd</sup> Ward Councilman for 20 years

engineering services for the past 20 years. The project consists of a 5,000 -ton chilled water plant and 1,500,000 cfm variable volume system for tenants and constant volume air system for common areas and an engineered smoke control system. The most recent project is a 2011, 100,000 square foot expansion of tenant spaces, a renovation of the food court, and a 1,250-ton chiller addition to the central chilled water plant.

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

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

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

**West Virginia Research, Education, and Technology – Building 704 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.



## Role

Site Design & Civil Engineer

## Professional Registrations

Registered Professional Engineer (WV, PA, OH)  
OSHA 40-Hour Health and Safety Training  
OSHA Supervisor Training

Project Manager with 20 years of experience with: site investigation, planning, design and contract administration services on military, site development and mine reclamation projects. Mr. Fuller has been fully responsible technically, managerially and administratively for the planning, investigation, design and contract document preparation for over 70 projects in the State of West Virginia.

Mr. Fuller has served as Associate Professor of Civil Engineering Technology at West Virginia University Institute of Technology on a full-time, part-time, and adjunct basis.

Mr. Fuller was principal or project manager for the following West Virginia Army National Guard Projects completed by Capitol Engineering, Inc. Descriptions of the projects with asterisks are provided elsewhere in this proposal.

- Joint Interagency Training and Education Center (JITEC)\*
- Morgantown Readiness Center\*
- Jackson County Armed Forces Reserve Center\*
- Fairmont Armed Forces Reserve Center
- Elkins Armed Forces Reserve Center
- Glen Jean Armed Forces Reserve Center\*
- Summersville Readiness Center
- Lewisburg Readiness Center
- C&FMO Office Expansion\*
- AASF #1 Apron Expansion/Rehabilitation and Taxiway Replacement
- Camp Dawson Runway Extension
- Camp Dawson Range Renovations
- Camp Dawson Qualification Training Range Preliminary Design Drawings
- AASF #1 Emergency Taxiway Repair
- JISOTF Initial Planning Study

## Education

Master of Science, Engineering, Marshall University Graduate College, 1997

Bachelor of Science, Engineering Technology, West Virginia Institute of Technology, 1989

## Military Background

### Service

- US Army Reserve, 1985-1988, Enlisted
- WV Army National Guard, 1988-2010, Lieutenant Colonel (Retired)

### Key Tours

- Operation Enduring Freedom/Operation Iraqi Freedom, 2003-2004, Major, EN, Plans Officer
- Operation Iraqi Freedom, 2007-2008, Lieutenant Colonel, EN, Design Engineer

## Civic Affiliations

- Society of American Military Engineers
- American Society of Civil Engineers
- American Institute of Architects
- Construction Specifications Institute



**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 2<sup>nd</sup> 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**

**Wood County Justice Center:** Ms. Cleland was responsible for site design for this adaptive reuse project in Parkersburg WV. The existing 32,000 SF building will create a new Magistrate Court and a Sheriffs Department. The project is targeting a LEED Certification.

**Highland Medical Facility:**

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. Ms. Cleland also coordinated with the City Engineer to meet local requirements for stormwater management, zoning ordinances, and driveway layout. In addition to coordinating with the City, Ms. Cleland was responsible for permitting required by state agencies for site development.

**Harts PK-8 School:** Ms. Cleland was responsible for site design and permitting. The site was constrained by the Guyandotte

**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



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.

**Family Readiness Center (WVARNG):** Ms. Cleland was responsible for site design for a two story building located on a hillside. Due to the existing slopes, Ms. Cleland performed 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.

**West Side Elementary School:** 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 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.

**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.



## Role

Structural Engineer

## Professional Registrations

Professional Engineer (WV)

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

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

## Project Experience

**Wood County Justice Center:** 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 Sheriffs Department. The project is targeting a LEED Certification.

**Tucker County Courthouse Annex:** 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.

**Southern West Virginia Community College:** Mr. Hedrick is responsible for the structural design of the new 22,000 SF

## Education

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

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

## Employment History

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

## Civic Affiliations

- American Institute of Steel  
Construction, Member

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.

**Bridgemont Community and Technical College (Davis Hall, Building 704), Montgomery, WV.**

Mr. Hedrick is responsible for the structural design for a design team that is currently preparing construction documents for the renovation to an existing 7-story, 77,000 SF educational building. The project scope includes remedying several engineering and life safety deficiencies, as well as architectural improvements to the building envelope.

**Joint Interagency Training and Education Center (JITEC), Kingwood, WV.** Mr.

Hedrick was responsible for the overall structural design of the three story billeting addition. The project met the requirements of the building code along with the additional requirements of the Department of Defense for blast and progressive collapse resistance.

**Jackson County AFRC, Ripley, 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.

**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.

**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.

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

**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.



## Role

Electrical Engineer

## Professional Registrations

Professional Engineer (WV)

Mr. Casdorff 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. Casdorff 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. Casdorff has participated on several LEED registered projects using energy conserving methods and utilizing lighting control systems and other means to meet or exceed ASHRAE 90.1, LEED, and energy code requirements.

## Project Experience

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

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

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

## 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

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

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

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

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

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

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

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

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



## Role

Lighting Designer and Electrical Technician

## Professional Registrations

Master Electrician – WV License #M02891

Lighting Certification with the National Council on Qualification for Lighting Professionals (NCQLP)

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

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

## Project Experience

### Wood County Justice Center, Parkersburg, WV.

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

### Judge Black Courthouse Annex, Wood County Commission, Parkersburg, WV.

Mr. Abernethy was responsible for lighting designs and electrical work on this annex renovation. The Judge Black Annex included two independent circulation paths – a secure entry and lobby for access to the

## Education

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

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

## Employment History

1992 - Present, Lighting Designer and Electrical Technician, ZMM

1988 - 1992, Estimator and Purchasing Agent, WV Signal and Light

1973 - 1988, Lighting and Electrical Designer, ZMM

1972 - 1973, Draftsman and Designer, FMC Inorganic Chemicals Division

## Civic Affiliations

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

Family Court and Prosecuting Attorney, and public access to the Assessor and Sheriff's Tax Department. The facility also houses several large public meeting rooms

**Tucker County Courthouse Annex, Parsons, WV.**

Mr. Abernethy is responsible for electrical and lighting designs for the Courthouse Annex renovation project and responsible for the HVAC systems. The Annex is a 4-story, 21,000 Square Foot building that is adjacent to the Tucker County Courthouse. The annex will house spaces for the Circuit Court, Circuit Clerk, Family Court, Magistrate Court, Prosecuting Attorney, County Commission, County Clerk, Community Corrections, and Probation Office.

**Bridgemont Community and Technical College Davis Hall Renovation, Montgomery, WV.**

Mr. Abernethy was in charge for the interior lighting design on the Davis Hall building renovations. The project scope included remedying several life safety deficiencies, as well as improvements to the building envelope.

**West Virginia Army National Guard, Joint Interagency Education and Training Center, Camp Dawson, WV.**

Mr. Abernethy was responsible for the interior and exterior lighting design of both the billeting expansion and the operations training center. The project utilizes less than 0.8 watts/SF for interior lighting, which has helped reduce energy consumption on the project by 40% compared to a baseline analysis.

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

**Edgewood Elementary School, Charleston, WV.** Mr. Abernethy is responsible for the electrical and lighting design for this new school. The school is being designed as a 21<sup>st</sup> Century Learning Environment, with a focus on integrating technology into the delivery of the curriculum. Instructional areas will be located off of an open 'exploratorium' that is being designed to function like a children's museum, providing a variety of learning opportunities, and flexible educational spaces. The school will also visibly integrate sustainable design principles to serve as a teaching tool for the students.

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

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

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



## Role

Architect

## Professional Registrations

Registered Architect (WV)

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

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

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

## Project Experience

### Joint Interagency Training and Education Center

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

**Highland Medical Facility:** Mr. Spencer was responsible for coordinating the production effort for the 60,000+ SF mental health facility. Mr. Spencer also produced several 3d models throughout the design process.

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

## Education

Bachelor of Architecture; 2007  
University of Tennessee, TN

## Employment History

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

## Civic Affiliations

- American Institute of Architects, Member



**Ripley Armed Forces Reserve Center:** Mr. Spencer participated in the schematic design of the 76,000 SF Reserve Center in Jackson County, West Virginia. Mr. Spencer was also responsible for coordinating the production effort for the project. Mr. Spencer also produced several 3d models throughout the design process. The project is aiming for LEED Silver Certification.

**New Kanawha County Elementary School:** Mr. Spencer 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 21<sup>st</sup> Century Learning Environment, with a focus on integrating technology into the delivery of the curriculum. Instructional areas will be located off of an open 'exploratorium' that is being designed to function like a children's museum, providing a variety of learning opportunities, and flexible educational spaces. The school will also visibly integrate sustainable design principles to serve as a teaching tool for the students.



### 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

Bridgemont CTC – Davis Hall Renovation  
Mountaineer Middle School  
Nicholas County High School  
East Greenbrier High School  
Mount View High School  
Ronceverte Elementary School  
Gauley Bridge Elementary  
Highland Hospital  
Summersville Hospital Medical Building  
Cacapon State Park  
Blackwater Falls State Park  
Western Regional Jail  
Alderson Federal Prison Camp  
Jean Dean Safety/Law Enforcement Building

### 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



WV Division of General Services

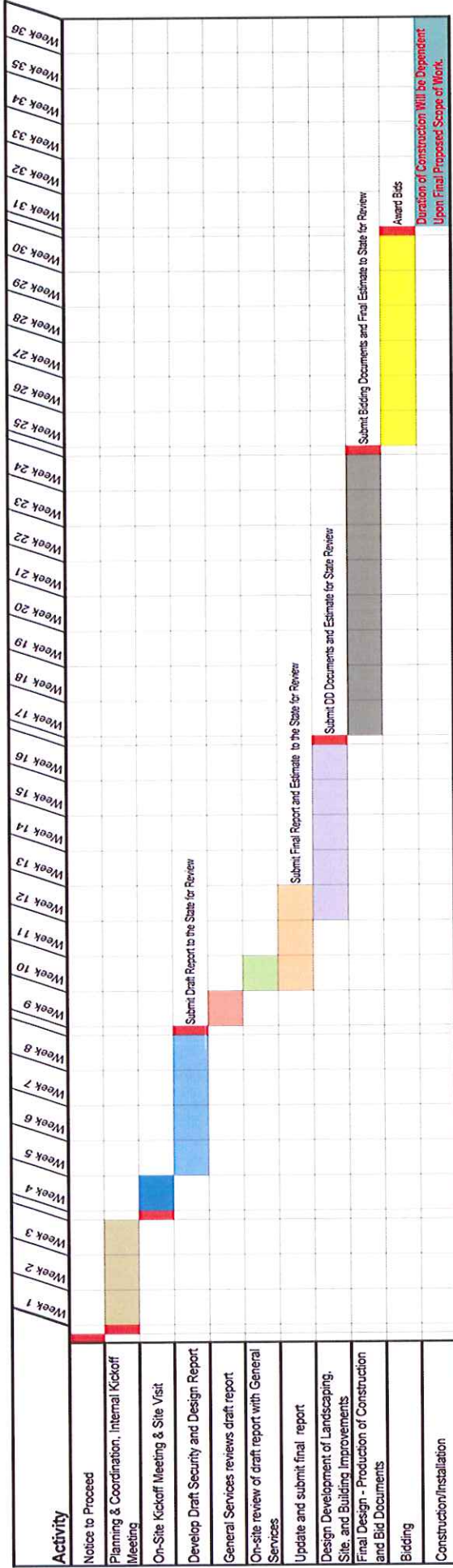
PRINCIPAL  
PROJECT MANAGER  
ZMM  
Adam Krason  
AIA, LEED AP

Ronald D. Heil, CPP, CSC, CHS  
Senior Security Consultant  
TranSystems

SECURITY	SITE	ARCHITECTURE	ENGINEERING	CONSTRUCTION ADMINISTRATION
Todd G. Libengood, PSP Senior Systems Designer TranSystems	Robert Fuller, PE Civil Engineer CEI	Nathan Spencer, AIA Architect ZMM	Bob Doeffinger, PE Engineer Project Manager ZMM	Glenn Savage, CSI-CDT Construction Administrator ZMM
Jim Elder, CPP Senior Security Consultant TranSystems	Mary Jo Cleland, PE Civil Engineer ZMM		Steve Hedrick, PE Structural Engineer ZMM	
			Scot Casdorff, PE Electrical Engineer ZMM	
			Michael Abernethy, LC, IESNA Lighting Designer ZMM	



# State of West Virginia Capitol Campus Security Design - Proposed Planning, Investigation, and Design Schedule



Denotes Action Item

Duration of Construction Will be Dependent Upon Final Proposed Scope of Work.





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

Advantages of an integrated Design Approach:

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

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

**ZMM offers the following professional services:**

**Pre-Design**

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

**Post Design**

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

**Design**

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

# Professional Services Capitol Engineering, Inc.



LOCATION:  
1206 Kanawha Blvd., E  
Charleston, WV 25301

CONTACT:  
Phone 304.344.0720  
capitolengineering.com

## **Civil Engineering**

Geotechnical Engineering  
Project Management  
Rail Siding Design  
Roadway Design  
Site Development & Grading Plans  
Siting Studies  
Slope Stability Analysis  
Stormwater Systems  
Wastewater Treatment System

## **Environmental Engineering**

Environmental Due Diligence  
Environmental Site Reviews  
Erosion & Sedimentation Control  
NPDES, GPCC, SPCC Plans  
Solid Waste & Landfill Design  
Stormwater Management Plans

## **Surveying & Mapping**

Control Surveys  
Floodplain Studies  
GPS Surveys  
Mineral Reserve Surveys  
Planimetric Surveys  
Quantity Determination Surveys  
River & Lake Soundings  
Topographic Survey

## **Construction Administration**

Bid Analysis & Management  
Construction Observation  
Damage Settlement  
Submittal Review

## **Mining Engineering**

Abandoned Mine Land Reclamation  
Acid Mine Drainage Passive Treatment  
Geologic & Hydrologic Evaluations  
Mine-Related Subsidence Investigations  
Mining Permits, Modifications, & IBR's  
Reclamation Liability Audits  
Surface Mine Surveying & Mapping

# Joint Interagency Training & Education Center

WVARNG

 ZMM

 CEI

LOCATION:  
Kingwood, West Virginia

SIZE:  
285,000 SF

COMPLETION:  
Est. 2012

COST:  
\$110 Million

OWNER:  
MG Melvin L. Burch  
WVARNG  
1707 Coonskin Drive  
Charleston, WV 25311  
304.561.6450

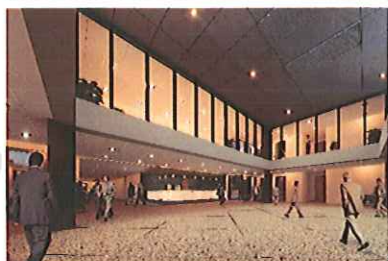
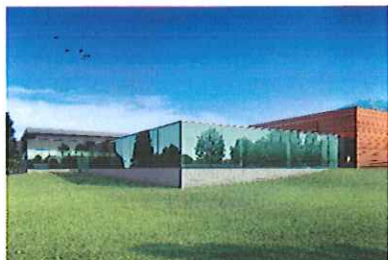
AWARD:  
2011 AIA Honor Award  
West Virginia Chapter  
*Excellence in Architecture*



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.

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. Continued...



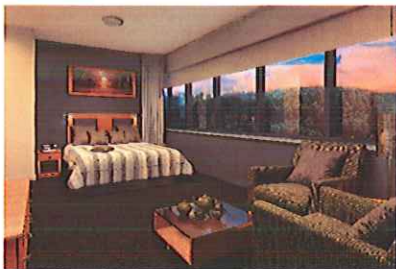
# Joint Interagency Training & Education Center



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

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

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



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

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



# Glen Jean Armed Forces Reserve Center

WVARNG



**LOCATION:**  
Glen Jean, West Virginia

**SIZE:**  
110,000 SF

**COST:**  
\$17 Million

**COMPLETION:**  
2004

**CONTACT:**  
MG Melvin L. Burch  
WVARNG  
1703 Coonskin Drive  
Charleston, WV 25311  
304.561.6450



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



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



# Jackson County Armed Forces Reserve Center

WVARNG

 ZMM

 CEI

LOCATION:  
Milwood, West Virginia

SIZE:  
75,000 SF

COST:  
\$20 Million

CONTACT:  
MG Melvin L. Burch  
WVARNG  
1707 Coonskin Drive  
Charleston, WV 25311  
304.561.6450



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



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

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

# State Office Building #5, 10th Floor

Office of Technology



LOCATION:  
Charleston, WV

SIZE:  
22,000SF

COST:  
\$3.7M

COMPLETION:  
2010

CONTACTS:

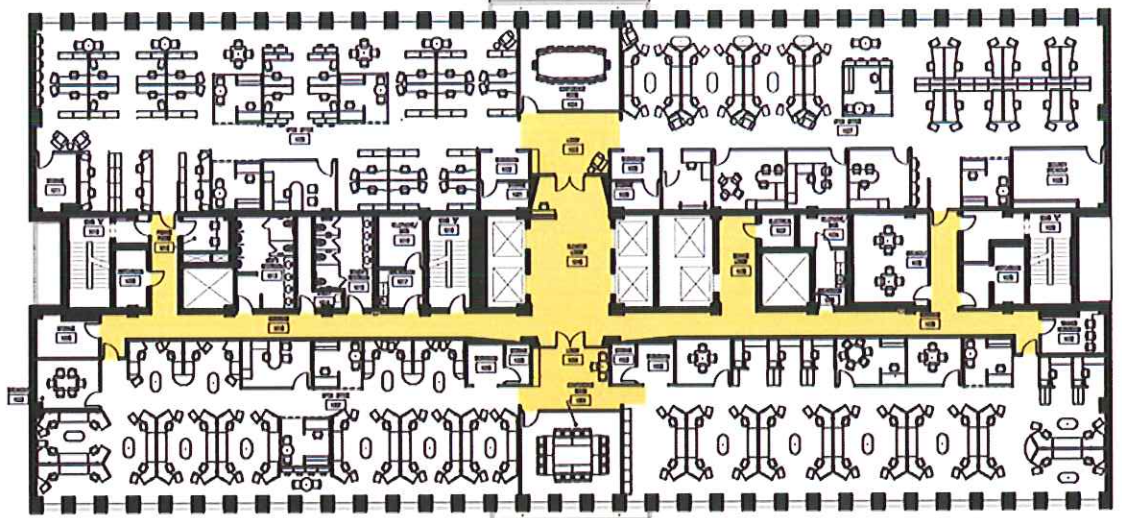
Mr. David Oliverio  
Director  
General Services  
Division  
1900 Kanawha Blvd. E  
Charleston, WV 25305  
304.558.3517

Mr. Chuck Lawrence  
Director  
Department of Admini-  
stration  
Real Estate Division  
1409 Greenbrier Street  
Charleston, WV 25311  
304.558.4331



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

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



# State Office Building #5, 10th Floor

Office of Technology



LOCATION:  
Charleston, WV

SIZE:  
22,000SF

COST:  
\$3.7M

COMPLETION:  
2010

CONTACTS:

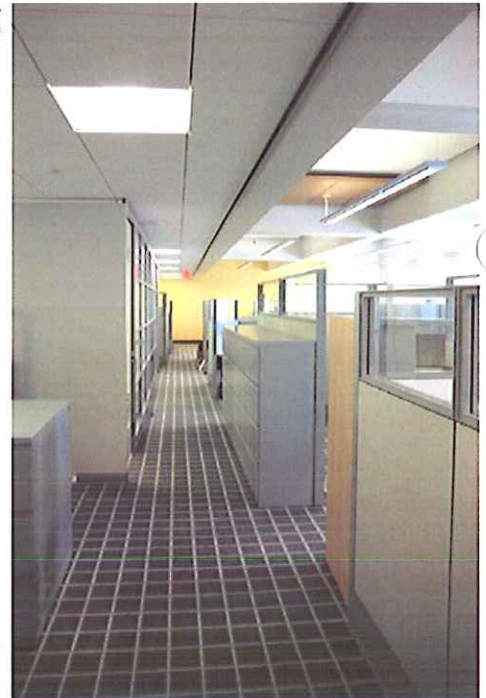
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To improve the opportunity for daylighting, office spaces have been "pulled-in" to the core of the building. This decision will allow for daylight to be introduced deep into the interior work areas, and will allow access to the daylight and views for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

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



# West Virginia Capitol Building

## Security Needs Analysis

**Tran**Systems

**LOCATION:**  
Charleston, WV

**COMPLETION:**  
February 2010

**CONTACT:**  
Gregory Clark  
Senior Consultant  
The Sextant Group  
412.323.8580



TranSystems performed a security concept and cost plan for renovation of the Historic West Virginia Capitol Building (Number 3) into a conference center.

### **The activity for the project included:**

- Risk and Threat assessment
- Review and evaluation of Architect's conceptual design
- Kick-off meeting and planning session with the architect and WV State Protective Services in WV
- Development of security needs analysis report with security concept for the building based on best practices for similar facilities to mitigate the risk and sound use of Crime Prevention Through Environmental Design principles. Facility changes needed to take into consideration preserving historic elements and appearance of the building.
- Development of conceptual design narrative with rough draft of estimated security measures cost.

# Time Warner Center

*Consulting and Security Design*

**Tran**Systems

LOCATION:  
New York, NY

COMPLETION:  
March 2006

CONTACT:  
Jim Campion  
One Time Warner Center  
New York, NY 10019  
212.484.7834



In February of 1997, Tran-Systems (then Aegis Security Design) was engaged as the principle security consultancy for a number of large and small-scale projects involving Time Warner, Inc. facilities. The scope of responsibilities included design enhancement and system design responsibilities for notable Corporate subsidiaries such as Time Inc., CNN New York, Warner Bros., Time Warner Cable, Time Warner Music, Atlantic Records and Entertainment Weekly.



The responsibility culminated in the development of the security program and systems design for the prestigious \$1.6 billion (new construction scope), 2.8 million ft<sup>2</sup> mixed-use Time Warner Center at Columbus Circle, located in the heart of Manhattan on the south side of Central Park.

Consulting and security design services involved all phases of planning, design and construction (master planning, programming, schematic, design development, construction documents, contract administration, commissioning), including access control, CCTV and alarm systems, and the development of a "Building within a Building" space design philosophy that made extensive use of CPTED design principals supplemented by physical and electronic security strategies.

# National Harbor Security Program

*Development & Engineering*

**Tran**Systems

**LOCATION:**  
Washington, D.C.

**COST:**  
\$2 Billion

**COMPLETION:**  
June 2008

**CONTACT:**  
Kent Digby  
Vice President  
Operations  
703.633.2697



The National Harbor Project is a new \$2 billion, 300-acre, mixed-use development on the Potomac River at Washington D.C. The National Harbor project will ultimately include more than 300 acres of land and 200 acres of water, miles of infrastructure and millions of square feet of commercial, retail and residential space. The current schedule is for the design and construction to be performed over the next 10 to 20 years.

TranSystems was selected to lead the development of the security program for National Harbor. The scope of the assignment included performing a security risk assessment, security master planning, development of a security guard program, designing a communications and signaling fiber optic infrastructures, based on extensive outside video surveillance security system for the public areas of the site with more than 150 cameras, parking garages, common spaces, and offices and residential buildings, interfacing building fire alarm systems, and developing the design of a proprietary security monitoring and command center.

The use of Crime prevention Through Environmental design principles were used extensively throughout, particularly in the pedestrian mall areas, to discourage crime and encourage legitimate use. Following selection of a contractor, TranSystems has supported the installation of the video camera system with response to RFI requests, reviews of shop drawings and periodic on-site inspections.

# State of Louisiana Office Building

Security Services

**Tran**Systems

LOCATION:  
New Orleans, LA

SIZE:  
340,000 SF

COMPLETION:  
Build-out of Project  
Cancelled by Owner

CONTACT:  
Michael F Holly, AIA  
Holly & Smith Architects  
APAC  
208 North Cate Street  
Hammond, Louisiana  
70401  
985.345.5210

## Security systems design to include:

- Development of a Schematic Design Review Report
- Development of a Design Development Security layout with industry standard devices
- Development of Door and Camera programming schedules
- In-progress design reviews



Holly & Smith Architect was engaged to design of the new 340,000 square foot State Office Building to be built in New Orleans, Louisiana on the same property as the old State Office Building which was rendered unusable by Hurricane Katrina.

Holly & Smith Architects in turn engaged TranSystems as the security consultant to the design effort. TranSystems conducted a needs analysis for the new facility prior to concept development of the building. The needs analysis included interviews with all project building tenants, review of the security measures in similar State Office Buildings, a crime threat analysis of the downtown New Orleans area, and a terrorism threat assessment.

The needs analysis included use of Crime Prevention Through Environmental Design (CPTED) principles in the design of both the exterior landscape and the design of the lobby/customer service areas. The needs analysis directly impacted the footprint of the new facility, to include overcoming local objections to the projected change to the city's skyline by demonstrating with sound anti-terrorism concepts how the risk to the building would be reduced with the proposed footprint.





# Lincoln Center

## Lincoln Center Development Project

**Tran**Systems

LOCATION:  
New York, NY

COMPLETION:  
September 2010



This first project in a series of independent but related capital initiatives being planned by Lincoln Center, designed by the critically acclaimed architectural firm Diller Scofidio + Renfro in collaboration with FX Fowle Architects, creates a vibrant new cultural corridor that spans West 65th Street from Broadway to Amsterdam Avenue and unites the street with the surrounding cityscape. By extending the threshold of Lincoln Center, the campus is opened up to encourage the interaction of artists, teachers, students, and the public.

The project includes major facility expansion and enhancement, the transformation of the North Plaza, one of the most important public spaces on campus, and the complete redesign of West 65th Street highlighted by a dramatic new street-level identity program for six resident organizations, including The Juilliard School (with an extensive renovation of Alice Tully Hall), The Film Society of Lincoln Center, Lincoln Center Theater, Lincoln Center for the Performing Arts, Inc., The Chamber Music Society of Lincoln Center, and the School of American Ballet.

TranSystems (then Aegis Security Design) was selected to conduct an all-hazards risk / vulnerability and CPTED (Crime Prevention Through Environmental Design) analysis and develop a campus security master plan for the public spaces at the Center. Due to its public nature and the need to minimize "hard architecture" often associated with security, TranSystems|Aegis Security Design, was challenged to support this effort with esthetically acceptable solutions driven by CPTED principals and unique technical approaches. After developing the Master Plan, TranSystems was again engaged to join the Project design team to aid in the implementation of the Plan, in particular, the design of a large scale campus security system and Security Operations Center.

# Lincoln Center

## Lincoln Center Development Project

**Tran**Systems

LOCATION:  
New York, NY

COMPLETION:  
September 2010



Design scope included physical barriers, electronic access control, digital video surveillance and unique campus infrared lighting plan that permitted greater creative latitude for aesthetic lighting, while still allowing adequate illumination for video imaging and custom designed "blended" camera housings.

The design process was facilitated by 3D modeling and animation tools which permitted virtualization of the completed video images as well as the coverages of the illuminators. The integration of the video system in the (a Bosque public space on the North Plaza), Damrosch Park (a public park-like space just south of the Metropolitan Opera), and the Tisch Illumination Lawn (the green roof of Lincoln restaurant located on 65<sup>th</sup> Street).

The initial plan also called for provisioning access to video images, camera control and recording by the New York Police Department for use in crowd management, traffic control and critical incident assessment and management.



2011

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



2011

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



2011

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



2010

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



2009

**Construction & Facilities  
Management Office**  
Charleston, WV  
2009 - Merit Award  
*"Achievement in Architecture"*  
AIA West Virginia Chapter



2008

**Erma Byrd Center**  
Beckley, WV  
2008 - Honor Award  
*"Excellence in Architecture"*  
AIA West Virginia Chapter



2007

**Lincoln County High School**  
Hamlin, WV  
2007 - Honor Award  
*"Excellence in Architecture"*  
AIA West Virginia Chapter  
Education Design Showcase  
*"Project of Distinction Award"*  
American School & University  
*"Outstanding Building Design"*



2006

**Gene Spadaro  
Juvenile Center**  
Mount Hope, WV  
2006 - Merit Award  
*"Achievement in Architecture"*  
AIA West Virginia Chapter



2004

**St. Albans High School**  
St. Albans, WV  
2004 - Impact in Learning Award  
*"Effective Transformation"*  
Education Design Showcase  
*"Outstanding Building Design"*  
American School & University  
*"Outstanding Building Design"*



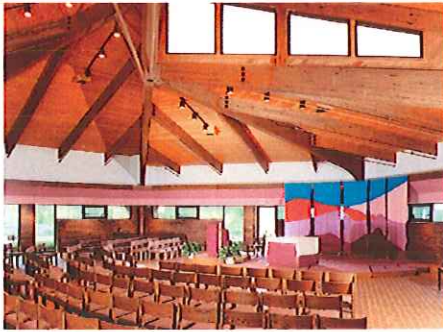
## Additional Award Winning Design



### **West Virginia Society of Architects Design Honor Awards**

**Corporate Headquarters Facility**  
Blue Cross / Blue Shield of West Virginia  
Charleston, West Virginia

**John XXIII Pastoral Center**  
Wheeling-Charleston Diocese  
Charleston, West Virginia



**Corporate Office Building**  
Contractors' Association of West Virginia  
Charleston, West Virginia

**One Bridge Place Office Renovation**  
Fisher-Bryson Properties  
Charleston, West Virginia



**United States Navy  
Admiral's Commendation  
Operations Building Alterations**  
Naval Security Group  
Sugar Grove, West Virginia

**Construction Specifications Institute  
Honorable Mention  
Restoration and Renovation Projects**  
Cottage Renovations to Federal Prison Camp  
Alderson, West Virginia



**Stonewall Jackson Lake  
Merit Award  
Design and Environmental Program**  
Recreation Area Basic Park  
Weston, West Virginia

## Client References

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



**Jo Goldberg, Senior Project Manager**  
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212.875.5830  
jgoldberg@lincoln Center.org



**Brigadier General Melvin Burch**  
WV Army National Guard  
1707 Coonskin Drive  
Charleston, WV 25311  
304.561.6460



**Russ Cline, Corporate Security Director**  
Westinghouse  
412.374.5700  
clinerg@westinghouse.com



**Colonel Luke Leonard, District Engineer**  
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600 Dr. Martin Luther King, Jr. Place  
Louisville, KY 40202  
502.315.6102

