

May 2, 2018

05/01/18 10:05:04 WU Furchasina Division

.WV Department of Administration Purchasing Division 2019 Washington Street, East Charleston, West Virginia 25305

Re: Expression of Interest to Provide A/E
Services for the Renovation of
Building 4

Dear Selection Committee:

Chapman Technical Group is most interested in providing the required A/E services for the Renovation of Building 4. We have assembled a strong project team to meet the requirements of your project.

Chapman Technical Group has extensive experience with the renovation of historic structures into modern office facilities. Most recently, we renovated the 40,000 square-foot former State Road Commission Building on Smith Street for the West Virginia Division of Highways. The building is on the National Register for Historic Places and now functions as a state-of-the-art office building. We were involved from start to finish, including the initial programming, systems analysis, and construction administration.

In 2013, Chapman Technical Group became part of the Lexington-based GRW family. GRW is multi-discipline design firm with a staff of more than 230 professionals and technicians, including a large architectural design studio. For your project, we will call upon the expertise of GRW to supplement our architectural capabilities.

ZDS Design/Consulting Services will provide mechanical, electrical, plumbing and fire protection design. ZDS has a long history of working on projects at the Capitol complex have a deep understanding of the requirements and expectations of our State government. Likewise, CAS Structural Engineering is experienced with Capitol complex projects and will help resolve any structural issues that may become apparent as the project is developed.

One of the more important members of our team is DLM Decisions, a construction consultant who is also well-versed in Capitol projects, having worked on Building 4 as a construction contractor. Dave Morris, President of DLM Decisions, will assist in the preparation of opinions of construction costs, will advise on issues of constructability, and will help develop a construction phasing plan that acknowledges the constraints of a partially-occupied building, while optimizing construction dollars and construction efficiency.

200 Sixth Avenue Saint Albans, WV 25177

> 304.727.5501 304.727.5580 Fax

Buckhannon, WV Lexington, KY

www.chaptech.com



West Virginia Department of Administration May 2, 2018 Page Two

You will see from our submittal that we have a very strong project team with the experience and expertise needed for a project like the Building 4 Renovation. We would very much appreciate the opportunity to discuss your project in more detail. If you have any questions or need additional information, please contact me.

Sincerely,

CHAPMAN TECHNICAL GROUP

Joseph E. Bird, ASLA

Vice President



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

State of West Virginia Centralized Expression of interest

02 - Architect/Engr

Proc Folder: 437126

Doc Description: EOi: Building Four Renovations

Proc Type: Central Contract - Fixed Amt

TOTAL TOTAL TOTAL					
Date Insued	Solicitation Closes	Solicitation	No		Version
2018-04-02	2018-05-02 13:30:00	CEOI	0211	GSD1800000004	1
1		I.			

BID RECEIVING LOCATION

BID CLERK

DEPARTMENT OF ADMINISTRATION

PURCHASING DIVISION

2019 WASHINGTON ST E

CHARLESTON

WV 25305

US

VENDOR

Vendor Name, Address and Telephone Number:

FOR INFORMATION CONTACT THE BUYER

Michelle L Childers (304) 558-2063

michelle.i.childers@wv.gov

Signature X

FEIN# 550704766

DATE May 2, 2018

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

Page: 1

FORM ID: WV-PRC-CEOI-001

ADDITIONALINFORMATION

Expression of Interest

The West Virginia Purchasing Division for the agency, The West Virginia General Services Division, is soliciting CEOI responses from qualified firms to provide architectural/engineering service contract for evaluation, design, and construction phase services for renovation of Building Four on the West Virginia Capitol Campus, per the attached bid requirements, specifications, and terms and conditions.

ENVOICE TO		SHIP TO			
DEPARTMENT OF ADMINISTRATION GENERAL SERVICES DIVISION 112 CALIFORNIA AVENUE, 5TH FLOOR		DEPARTMENT OF ADMINISTRATION GENERAL SERVICES	GENERAL SERVICES		
CHARLESTON	WV25305	112 CALIFORNIA AVENUE, 5TH FLOOR CHARLESTON WW 25305	-0123		
US		us			

Line	Comm Ln Desc	Qty	Unit Issue	
1	A/E Svcs: Building Four Renovations Project	0.00000		

Comm Code	Manufacturer	Specification	Model #
81101508			

Extended Description:

Building Four Renovations Project

Contra	ct Administrator and the initial point of contact for matters relating to this Contract.
(Swetter v.P.
	(Name, Title)
	Joseph E. Bird, VP
	(Printed Name and Title)
	200 Sixth Avenue, St. Albans, WV 25177
	(Address)
	304-727-5501/304-727-5580
	(Phone Number) / (Fax Number)
	jbird@chaptech.com

DESIGNATED CONTACT: Vendor appoints the individual identified in this Section as the

CERTIFICATION AND SIGNATURE: By signing below, or submitting documentation through wvOASIS, I certify that I have reviewed this Solicitation in its entirety; that I understand the requirements, terms and conditions, and other information contained herein; that this bid, offer or proposal constitutes an offer to the State that cannot be unilaterally withdrawn; that the product or service proposed meets the mandatory requirements contained in the Solicitation for that product or service, unless otherwise stated herein; that the Vendor accepts the terms and conditions contained in the Solicitation, unless otherwise stated herein; that I am submitting this bid, offer or proposal for review and consideration; that I am authorized by the vendor to execute and submit this bid, offer, or proposal, or any documents related thereto on vendor's behalf; that I am authorized to bind the vendor in a contractual relationship; and that to the best of my knowledge, the vendor has properly registered with any State agency that may require registration.

Chapman Technical Group
(Company)
Swithing, V.P.
(Authorized Signature) (Representative Name, Title)
Joseph E. Bird, VP
(Printed Name and Title of Authorized Representative)
May 2, 2018
(Date)
304-727-5501/304-727-5580
(Phone Number) (Fax Number)

(email address)

ADDENDUM ACKNOWLEDGEMENT FORM SOLICITATION NO.:

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

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

, , , , , , , , , , , , , , , , , , , ,	
Addendum Numbers Received: (Check the box next to each addendum received)	eived)
X Addendum No. 1☐ Addendum No. 2☐ Addendum No. 3	☐ Addendum No. 6 ☐ Addendum No. 7 ☐ Addendum No. 8
Addendum No. 4 Addendum No. 5	Addendum No. 9 Addendum No. 10
I further understand that any verbal represer discussion held between Vendor's represent	ipt of addenda may be cause for rejection of this bid. Intation made or assumed to be made during any oral Intatives and any state personnel is not binding. Only to the specifications by an official addendum is
Chapman Technical Group	
Company Authorized Signature	
Authorized orginalize	
May 2, 2018	
Date	

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

(3)

West Virginia Ethics Commission Disclosure of Interested Parties to Contracts

(Required by W. Va. Code § 6D-1-2)

Contracting Business Entity: Chapman Technical Group	Address: 200 Sixth Avenue
	St. Albans, WV 25177
Authorized Agent: Joseph E. Bird	ddress: 200 Sixth Avenue
Contract Number: CEOI 0211 GSD1800000004 Contract	t Description: Building Four Renovations
Governmental agency awarding contract: Department of Adm	inistration
☐ Check here if this is a Supplemental Disclosure	
List the Names of Interested Parties to the contract which are known entity for each category below (attach additional pages if necessary)	
 Subcontractors or other entities performing work or service Check here if none, otherwise list entity/individual names belog ZDS Design/Consulting Services 	
CAS Structural Engineering DLM Decisions 2. Any person or entity who owns 25% or more of contracting	entity (not applicable to publicly traded entities)
☑ Check here if none, otherwise list entity/individual names belo	
	ple contract)
Notary Verification	N/
State of Nest Virginia, County of	Dangwha
State of <u>Nest Vicainia</u> , County of, County of, County of, entity listed above, being duly sworn, acknowledge that the Disciosupenalty of perjury.	, the authorized agent of the contracting business are herein is being made under oath and under the
Taken, sworn to and subscribed before me thisda	y of May . 2018.
N	otary Public's Signature
To be completed by State Agency: Date Received by State Agency: Date submitted to Ethics Commission: Governmental agency submitting Disclosure:	Amanda M. Sutphin

STATE OF WEST VIRGINIA Purchasing Division

PURCHASING AFFIDAVIT

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

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

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

DEFINITIONS:

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

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

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

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

WITNESS THE FOLLOWING SIGNATURE:

Vendor's Name: Chapman Technical Group		
Authorized Signature:		Date: May 2, 2018
State of West Virginia		
County of Kanawha to-wit:	8.4	
Taken, subscribed, and sworn to before me this $\frac{4}{3}$ d	ay of May	, 20 <u>18</u> .
My Commission expires	, 20 <u>12</u> .	
AFFI Notary Public, State of West Virginia Amanda M. Sutphin Chapman Technical Group 200 Sixth Ave. St. Albans, WV 25177 My Commission Expires April 17, 2022	NOTARY PUBLIC	Purchasing Affidavit (Revised 01/19/2018)
HEREITERING HEREIT		



Project Team

Chapman Technical Group is a full-service engineering, landscape architectural, architectural, and geospatial consulting firm. Founded in 1984 by Harvey R. Chapman, the firm joined the family of GRW, a similar design firm based in Lexington, Kentucky. When teamed with GRW, our staff numbers more than 230 professionals and technicians.

Chapman Technical Group's architects have extensive experience in the renovation of historic buildings, having recently completed the historic three-story, 40,000 square-foot State Road Commission Building on the WV DOH District 1 campus on Smith Street. Our architectural team also includes LEED professionals with tremendous experience in designing state-of-the-art office buildings.

Our project team includes the following specialty consultants. Detailed information for each of the consultants can be found on the following pages.

ZDS Design/Consulting Services will provide mechanical, electrical, plumbing, and fire protection design services. ZDS has been involved in numerous projects at the Capitol complex and has extensive knowledge of the various systems that are used throughout the complex.

CAS Structural Engineering will assist in any structural analysis and design that may be required. CAS also has extensive experience in working on projects at the State Capitol.

DLM Decisions provides cost estimating and advises on construction issues and project phasing. Their input will be invaluable in determining practical solutions to complex issues.





Established in 1984, Chapman Technical Group has steadily grown into a diverse firm of professionals, many of whom were educated in West Virginia colleges and universities. We have achieved an outstanding reputation for developing high-quality projects, while meeting schedules and budgets.

In 2013, Chapman Technical Group was acquired by the Lexington, Kentucky based A/E firm of GRW, allowing us to provide a wider range of services while expanding our resources. Now, in addition to our offices in St. Albans, Buckhannon, and Martinsburg, West Virginia, as part of the GRW family, we also work in Kentucky, Ohio, Tennessee, and Indiana.

Our architectural group not only designs new buildings from the ground up, but also specializes in renovations and historic restoration projects. Our award-winning landscape architects provide master planning, as well as detailed site design for parks and public spaces projects. In addition to our building studio, our engineering support staff gives us the ability to meet almost any challenge a project may present. All of our mechanical, electrical, plumbing engineering is provided in-house, and our civil engineers work with our landscape architects to provide site designs that are functional while achieving a high level of aesthetics.

Water and sewer system design is accomplished by our environmental engineers, and when on-site wastewater treatment is required, we can do it.

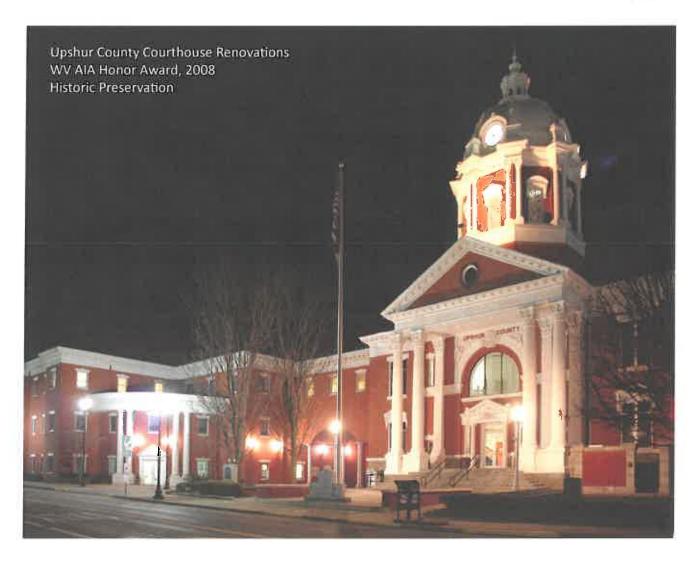
Working with our airport group, we can provide full airport design services, from runway and lighting design, to hangars and terminal buildings.



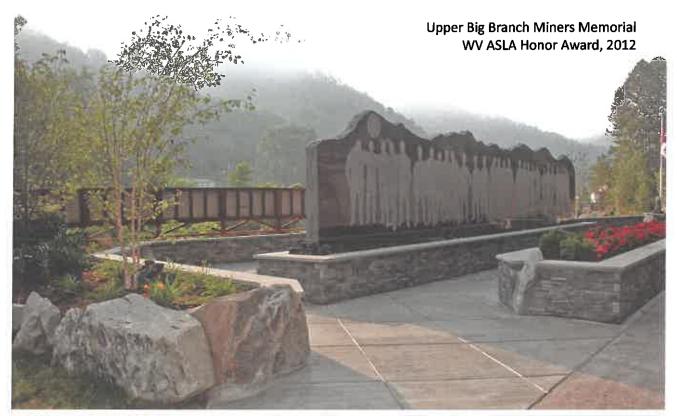








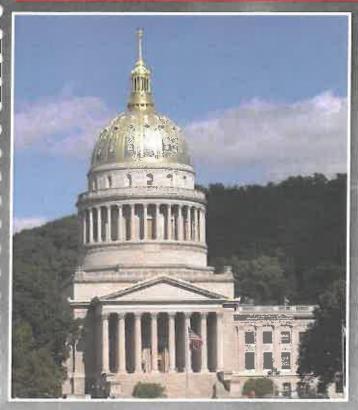








COMPANY OVERVIEW







ABOUT ZDS DESIGN/CONSULTING SERVICES

In 1983, Todd A. Zachwieja founded ZECO Consultants. In 1994 ZDS Limited Liability Company was incorporated in West Virginia using dba ZDS Design/Consulting Services, and was founded to provide design and consulting services.

Each new project is assigned to a principal in charge who will follow the project from inception through commissioning. ZDS assigns the production staff according to the nature of the project and the work force necessary to meet the schedule. The principal in charge of that project determines if consultants are needed and coordinates all areas. After bidding, a principal of ZDS coordinates visits to the job site regularly, all the way through the post-warranty inspection. ZDS believes in the team approach when providing engineering design and consulting services. We start with our client as the number one member on our team. We listen to the needs and concerns of our client and that becomes the basis for our design.

COMPANY LEGAL NAME.

ZDS Limited Liability

Company dba ZDS Design/Consulting Services

LOCATION OF INCORPORATION

West Virginia

FOUNDERS

Todd A. Zachwieja, P.E., C.E.O.

Lori L. Zachwieja, C.P.A., C.F.O.

Daniel H. Kim, Ph.D.

OFFICE

281 Smiley Drive, St. Albans, WV 25177

EMPLOYEES

ZDS currently employs design professionals covering all aspects of our services.

Design/Consulting Services

COMPANY OVERVIEW

CLIENTS & EXPERIENCE

- ♦ Cass Scenic Railroad
- Charleston Area Medical Center
- Charleston National Bank/Chase
- ♦ Coal Heritage Discovery Center
- ◆ Concord University Nick J. Rahall II Technology Ctr.
- District 2 Headquarters' Building HVAC Renovations
- ♦ General Motors North America Operations
- ♦ Harvard University Arboretum
- Hopemont Hospital, WVDHHR
- ♦ IMC Data Center
- ♦ Jackie Withrow Hospital, WVDHHR
- Kanawha County Commission Courthouse
 Judicial Annex
- ♦ Laidley Towers
- ♦ Marshall University Harris Hall & Smith Hall
- ♦ Meadowbrook & Burnsville Rest Areas, WVDOT
- Mercer County Courthouse
- ♦ Pendleton County Courthouse & Annex
- ♦ Pocahontas County Community Center
- **♦** Robinson Grand Performing Arts Theatre
- ♦ Redmond House, WVDOT
- ♦ St. Patrick Church Renovations
- ♦ Toyota Manufacturer. WV Inc.

- Tucker County Courthouse
- University of Charleston Innovation Center
- Veterans Administration
- Webster County Development Authority
- ♦ Webster County Schools
- White Sulphur Springs Welcome Center
- ♦ William R. Sharpe, Jr. Hospital, WVDHHR
- World Trade Center, MD
- ♦ WV Air National Guard
- ♦ WV Army National Guard
- ♦ WV Children's Home, WVDHHR
- ♦ WV Dept. of Education
- WV Division of Energy
- WV Dept. of Transportation
- ♦ WV Dept. of Health & Human Resources
- WV Division of Culture and History Renovations
- ♦ WV Division of Protective Services
- ♦ WV General Services Division
- ♦ WV Higher Education Policy Commission
- ♦ WV Parkways Authority HVAC Renovations
- WVU Stewart Hall & Wise Library
- ♦ Yeager Airport

ZDS provides comprehensive design services. We have experience and specialties in indoor air quality, energy management and commissioning, along with traditional mechanical and electrical design experience dating back as far as 1958. We offer a complete package. ZDS works with all levels of the client's staff: the building owner, budget supervisor, operating and maintenance staff and others impacted by the project. We recognize that the maintenance and operating staff live with the design long after the project's completion. We listen to and work with those who will continue to operate and maintain the equipment. We find that proper communication benefits the client throughout the design process and beyond.

The ZDS design team provides a total system evaluation for cost-effective selection, installation, and ease of maintenance for both new systems and retrofit of in-place systems. Design begins with our client. Our staff meets with our client to review their concerns, budgets and schedules. The ZDS design team reviews the entire picture, and ends with "A Total Design."

The ZDS staff has the expertise with codes and standards. We have extensive experience in conducting engineering code surveys of existing facilities. Our staff has excellent working relationships with the West Virginia Fire Marshal's Office, West Virginia Department of Education and the West Virginia School Building Authority. In addition to comprehensive Engineering services from an experienced design team, another major consideration in the selection of your engineer and design staff should be their track record.

zos' organization has an unbeatable, long running, and well-known track record for meeting our clients' needs, on time and within budget, with outstanding quality. Zos views these characteristics as the foundation of Quality. We look forward to the opportunity to discuss our ideas with you and assist you by providing solutions for your needs with a full range of services from Planning to Commissioning.

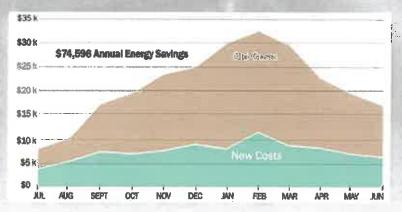


COMPANY OVERVIEW

At **ZDS**, our engineering staff integrates energy efficiency into each project design to provide you, our client, with the added value that you expect and deserve. The ZDS approach represents transactors amount of exprenserve in designing energy efficient facilities. ZDS offers a comprehensive range of energy management services including:

- Providing detailed analysis of facilities
- Recommending sound and proven energy saving solutions
- Implementing energy management improvements
- Determining, quantifying and assisting. in securing available Utility and Government grants

The ZDS team members take pride in the quality of their projects and have been responsible for designing implementing numerous energy management programs. These programs are providing significant energy improvements and include optimizing, central utility plant equipment, control systems, air handling systems, lighting systems, and other energy consuming equipment.



Recent projects include:

- Interconnecting boilers and chiller plant systems
- Designing Geothermal HVAC systems
- Optimizing HVAC equipment and operating sequences, including upgrades to variable speed operation
- Installing Direct Digital Control (DDC) Energy Management Systems
- Replacing inefficient lighting equipment with energy efficient
- Modifying air handling equipment from 100% outside air to return air operation
- Implementing heat recovery and into HVAC equipment



I^M Place 2014 ASHRAE Technology Award



In addition to the energy management projects outlined above. the team members have extensive experience in identifying and implementing energy efficient operating and maintenance measures. These are typically low cost or no cost measures that include:

- Inspecting, calibrating temperature controls and adjusting outdoor air dampers
- Commissioning economizer cycle operation
- Testing steam traps and pressure relief equipment operation
- Enabling heating and cooling equipment only when required

ABOVE: ZDS designed and implemented the region's first and largest commercial geothermal system saving Webster County High School over \$74,596 in energy savings.



Firm Profile

CAS Structural Engineering, Inc. – CAS Structural Engineering, Inc. is a West Virginia Certified Disadvantaged Business Enterprise structural engineering firm located in the Charleston, West Virginia area.

Providing structural engineering design and/or analysis on a variety of projects throughout the state of West Virginia, CAS Structural Engineering has experience in excess of 20 years on the following types of building and parking structures:

- Governmental Facilities (including Institutional and Educational Facilities)
- Industrial Facilities
- Commercial Facilities

Projects range from new design and construction, additions, renovation, adaptive reuse and historic preservation (including use of The Secretary of the Interior's Standards for Rehabilitation) to evaluation studies/reports and analysis.

CAS Structural Engineering utilizes AutoCAD for drawing production and Enercalc and RISA 2D and 3D engineering software programs for design and analysis. Structural systems designed and analyzed have included reinforced concrete, masonry, precast concrete, structural steel, light gauge steel and timber.

Carol A. Stevens, PE is the firm President and will be the individual responsible for, as well as reviewing, the structural engineering design work on this project. While CAS Structural Engineering, Inc. has only been in business for nine years, Carol has over 20 years of experience in the building structures field, working both here in West Virginia and in the York, Pennsylvania vicinity. Carol is also certified by the Structural Engineering Certification Board for experience in the field of structural engineering.

CAS Structural Engineering, Inc. is covered by a \$1 million errors and omissions liability policy.



CAREER HISTORY:

2012 – Present DLM Decisions LLC

2009 - 2010 Pray Construction Company

2007 – 2014 Q2 Builders LLC

1997 – 2016 Quantum Construction Services, Inc. 1994 - 1997 Wiseman Construction Company

1988 - 1994 Pray Construction Company

1984 - 1988 State Farm and Prudential Insurance

David L. Morris

PO Box 777

Alum Creek, West Virginia 25003

(304) 741-1623 mobile

(304) 756-1209 office / home

Email: dlm@dlmdecisions.com

Managing Member Project Manager

Member (Advisor)

President Vice President

Chief Estimator / Project Manager / Estimator

Estimator in Property & Casualty Divisions

CORE VALUES

- Leader
- Solid Work Ethic
- Honest / Fair
- Rapid Reseacher
- Consideration for Other Perspectives

EDUCATION AND TRAINING

- BS in Architectural Engineering Fairmont State University Fairmont, WV
- Soil and Foundation Classes WV State University Institute, WV
- Vale National Training Center Professional Estimating Training Chambersburg, PA
- International Estimators Academy Creating National Estimating Models Gettysburg, PA
- Executive Management School State Farm Insurance Frederick, MD
- Kanawha Valley Real Estate School Realtor License Training Charleston WV
- Total Quality Management Facilitator Training Charleston, WV
- Timberline (now Sage) Estimating School Estimating / Financial Model Training Raleigh, NC
- Leadership Charleston Graduate

LICENSES:

- WV General Contractors License (currently unassigned)
- WV Master Plumber -
- WV Real Estate Sales License (inactive)

SKILLS AND ABILITIES

- Expert status
 - Estimating
 - Architectural Document Interpretation
 - o Construction Project Management

Advanced status

- o Historic Preservation Techniques
- o Negotiator
- Project Scheduler
- o Construction Law
- Construction Finances / Accounting

SKILLS AND ABILITIES CONT'D

Proficient with

- Microsoft Excel
- Microsoft Word
- Microsoft PowerPoint
- Microsoft Project
- o Adobe Acrobat
- o Various additional computer software
- Most construction equipment

CAREER PROJECT LIST – PARTIAL:

Major Projects - Consulting - Current:

- Boone Memorial Hospital, New Hospital Building Clerk of the Works/Owner Rep Madison, WV
- Boone Memorial Hospital, Clinic Renovation Owner Rep / Project Manager Madison, WV
- Pipestem State Park, Lodge / Tram Repairs Cost Analyst Pipestem, WV
- Hawks Nest State Park, Lodge Repairs Cost Analyst Ansted, WV

Major Projects - Consulting - Completed:

- Star USA Credit Union, Branch Office Construction Coordinator Summersville, WV
- WVU Robert C. Byrd Health Masonry Investigation / Cost Analysis Charleston, WV
- Thomas Hospital Parking Garage Analysis South Charleston, WV
- St. Francis Hospital Parking Garage Analysis Charleston, WV
- Holly Grove Mansion Probes / Estimating / Project Analysis Charleston, WV
- West Virginia Main Capitol Building, Exterior Dome / Exterior Stone Probes Charleston, WV
- Various West Virginia State Park Projects, Cost Analyst / Construction Administration WV

Major Projects Constructed:

- West Virginia Capitol Complex, Building 4 Penthouse Elevator Expansion Charleston, WV
- West Virginia Capitol Complex, Cultural Center, Great Hall Renovation Charleston, WV
- West Virginia Capitol Complex, Building 3- Floors 2, 3 & 5 Renovation Charleston, WV
- West Virginia State University, Erickson Alumni Center New Building Institute, WV
- West Virginia Radio Corporation, Complete Exterior/Partial Interior Renovation Charleston, WV
- Star USA Credit Union Branch Office New Buildings Beckley, WV and St. Albans, WV

Major Historical Projects Constructed (All are on the National Register of Historic Places):

- West Virginia Main Capitol Building, Interior Dome Renovation Charleston, WV
- West Virginia Main Capitol Building, South Plaza Renovation Charleston, WV
- West Virginia Main Capitol Building, West Wing Senate Offices Renovation Charleston, WV
- 🐠 Marshall University, Old Main Building Masonry Restoration Huntington, WV
- Littlepage Mansion for Kanawha Charleston Housing Exterior Renovation Charleston, WV

Major Medical Projects Constructed:

- Thomas Hospital Pediatrics Unit Renovation South Charleston, WV
- 21st Century Oncology of Maryland Renovation Bel Air, MD

Major Projects Estimated (and received):

- NIOSH Building Addition Morgantown, WV (approx. \$31,000,000.00)
- William R. Sharpe Hospital Weston, WV (approx. \$28,000,000.00)
- Northern Regional Jail Moundsville, WV (approx. \$11,000,000.00)

Project Team Organization

West Virginia Department of Administration General Services Division

Joseph Bird, ASLA, Project Manager

Architecture/Interior Design

Phill Warnock, AIA Tommy Cloer, AIA Jimmy Piper, AIA, LEED AP BP+C Sharon Chapman

Structural Engineering

Carol Stevens, PE David Hoy, PE

Landscape Architecture

Joseph Bird, ASLA Roger Kennedy, ASLA

Civil Engineering

Mike Johnson, PE

Mechanical/Electrical/Fire Protection

Todd A. Zachwieja, PE, CEM, LEED AP Ted A. Zachwieja, PE, CEM, LEED AP Ted Zachwieja, III, PE, CEM





Upshur County Commission Upshur County Courthouse Renovations

38 West Main Street Buckhannon, West Virginia

Since the design and construction of the courthouse annex in 1995, Chapman Technical Group has been involved in several improvement and restoration projects at the Courthouse in Buckhannon. In 2005, a lift was installed and the plaza renovated to make the original courthouse accessible. In 2006, the Courthouse dome and clock tower were completely restored. In 2007, the Courthouse portico stonework was restored, and in 2008 the work was honored by the AIA/WV for Excellence in Architecture.

American Institute of Architects, Honor Award, 2008



Dome Restoration Detail





WV Division of Highways
State Road Commission Building Renovation
Charleston, WV

As part of the West Virginia Division of Highways District One Campus Renovation, the former State Road Commission Building was renovated to serve as an office building for various DOH personnel. The historical 40,000 square-foot facility retained many historical features, including orginal doors and transoms, while providing energy-efficient and cost effective systems throughout. In addition to a complete interior makeover that included a historic information center and radio studio, the building also received new exterior doors, windows, roofing and a new elevator. A skywalk connects the building to a new Headquarters Building being constructed beside the SRC Building. A courtyard was also constructed for employee use.











Frankfort Plant Board New Administration Building Frankfort, KY

The Frankfort Plant Board, a municipal utility company that provides cable, broadband, telephone, security, electric and water for the city of Frankfort, KY, and surrounding areas, hired GRW to provide programming, planning and design services for its new consolidated administration building and associated 30-acre site.

The new three-level, 46,000 SF administration building project consolidates the Frankfort Plant Board's administrative offices for accounting, human resources, management, IT, and dispatch. In addition, facilities were provided for the Plant Board's public customer service functions including cashier/payment service stations, exterior drive through tellers, product service representation, and a board/community room. The facility also includes backup utility systems and a designated shelter area.

The building facade is primarily constructed of architectural precast concrete panels with design elements such as structural silicone glazing systems and aluminum panels.











Cumberland County Justice Center

Burkesville, KY

Designed to accommodate both Circuit and District Courts, this 24,270 SF facility is adjacent to the public square in Burkesville, KY. The first level includes a hearing room, sallyport, holding cells, witness areas, pre-trial area, clerk's offices, and other support functions. The second level includes the jury courtroom, judges' offices, holding cells, witness and attorney/client areas, conference rooms, law library, substantial public lobby spaces, and other supporting spaces. The building is segregated as required for judges' circulation, public circulation, and secure areas.







Ohio ARNG Joint Armed Forces Reserve Center/Field Maintenance Shop Complex Springsfield, OH

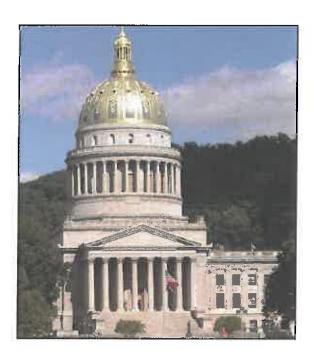
GRW provided full-discipline architecture and engineering services for planning, design and construction of a new LEED Silver Certified 85,865 SF Joint Armed Forces Reserve Center and Field Maintenance Shop for the Ohio Army National Guard (ARNG) and the US Army Reserves in Springfield, OH. These facilities are designed to match the architecture of the facilities on an adjacent site occupied by the Ohio ARNG.

The administrative/training complex includes the following functional spaces and features:

- Private offices and administrative common spaces
- Classrooms and library
- Gymnasium-type multipurpose assembly hall with fully functional kitchen
- Physical fitness area
- Ten drive-through vehicle work bays
- Heated and unheated storage areas
- Full cutoff luminaires for site lighting to eliminate light trespass
- Occupancy sensor controlled interior lights throughout
- T5 low mercury, high-efficiency fluorescent lamps and electronic ballasts
- Energy submetering connected to building management system (DDC)
- Geothermal system for heating and cooling of the facilities
- Site anti-terrorism/force protection measures, security lighting, utilities and landscaping

ZDS Design/Consulting Services

Project Name: State of WV Capitol Complex Performance Contracting
Located in Charleston, WV



Client Contact:
Mr. Chuck Moeller
Constellation Energy
24 Summit Park Drive, Suite 103
Pittsburgh, PA 15275
(412) 489-9445
charles.moeller@constellation.com

Services:

Engineering planning and design for central heating plant, DDC controls, Air Handling Unit replacements retrofits, and operating maintenance, training, heat fuel recovery, conversion, VFD's, variable water volume pumping, steam/heating hot water and chiller optimization. ZDS was a consultant, working under the direction of Johnson Controls, Inc.

Project Description

The State of West Virginia was aware that their facilities at the Capitol Complex were aging and in need of significant infrastructure upgrades, but were having difficulty appropriating the necessary funding to make such improvements. Many of the existing boilers and other primary heating equipment were past their expected service life and in disrepair. The State of West Virginia passed a new bill in 2003 that permits Performance Contracting to be used as an avenue for implementing infrastructure upgrades in State facilities provided the upgrades self-fund within a 15 year time period. The State elected to solicit proposals from various Energy Service Companies (ESCO) with the intention of crafting a major improvement project that would reduce operating costs to the State as well as pay for itself over the 15 year period.

After an extensive review and selection process, the Team of Johnson Controls, Inc. and ZDS Design/Consulting Services was selected. The scope of the project included various energy conservation measures to the Capitol Building as well as Buildings #3, 4, 5, 7, 8, 9, 11, 13, 15, 16 and 17. The center piece of the program involved engineering the central heating plant and distribution system for the Capitol Building, as well as Buildings #3, 4, 5, 7, 8 (Governor's Mansion) and provisions for #10 (Holly Grove) plus additional future capacity.

A central heating plant anchored the Facility Improvement Measures. It yielded the elimination of 14 failing boilers with provisions for future expansion of up to 600,000 square-feet of office space. A centralized heating plant offers greater efficiency in overall system operation, centralized control and maintenance of primary heating equipment, with the added benefit of supplemental capacity in the event of a boiler failure. The first phase of the program began in May 2005, with the evaluation of the existing heating plants, HVAC equipment, and their subsystems to quantify deficiencies and identify potential opportunities to improve comfort, IAQ, extension of equipment life and an overall reduction in operating costs. Preliminary engineering studies reflected that millions of dollars could be saved in energy, operating costs and deferred capital costs by implementing this multi-million dollar program. The new central plant consisted of four 25,000 MBH high pressure steam boilers and retrofitting two 5,500 MBH boilers to heating hot water plus the distribution system to serve nine (9) buildings on campus.



Some typical improvements included either the replacement or retrofit of major air handling units, re-establishing proper control strategies, reducing outdoor air intake quantities when allowable, installing new building automation equipment, general HVAC equipment repairs and replacement, documentation of existing and post-construction conditions, and establishing a consistent overall operating strategy. Individual HVAC systems were enhanced to meet applicable codes and standards. Exhaustive hours were spent with the State in assisting them with the identification and prioritization of facility improvement measures. The time spent also identified potential construction issues with an emphasis on critical phasing requirements.

Over the years, **ZDS** has been involved in evaluation and/or design, including construction activities, for 2,137,400 square-feet involving fifteen (15) buildings at the State Capitol campus.

 Contracting Costs:
 \$10,108,802

 Initial Year Savings:
 \$1,079,296

 Size:
 1,929,155 ft²

Completion: 2008 for Construction

ZDS Design/Consulting Services

Project Name: The Museum of Culture and History - HVAC Renovations

Client: State of West Virginia, Charleston, WV

Client Contact: Mr. Mark Lynch, Director of

Facility Operations (304) 558-0220

The Culture Center - Bldg 9 WV Capitol Complex Charleston, WV 25305 Services: Engineering Master Planning, Indoor Air Quality evaluation, energy analysis, Mechanical/Electrical/Fire Protection design, bidding and construction administration services for retrofitting the 228,500 ft² museum and protecting the artifacts.



ZDS principals and personnel have been involved in numerous design and recommissioning projects for the West Virginia State Capitol Complex while at ZDS and through other employment over their careers. These projects required the engineering planning, design, supervision, preparation of construction documents, specifications, construction administration, and commissioning of HVAC systems, sprinkler systems, plumbing systems, electrical power, lighting, fire alarm, security, technology and communications. ZDS completed the design for the West Virginia Division of Culture and History, correcting their long-term HVAC and Indoor Air Quality problems in 2001, and were contracted again in 2008 for providing fire alarm and fire protection upgrades which were completed in 2010.

ZDS Design/Consulting Services was the Prime for both the HVAC/Electrical Renovations project and the Fire Alarm/Fire Protection renovations. The Fire Alarm/Fire Protection renovations project was completed well **under budget** while the work was effectively phased with the building remaining occupied throughout the renovations.

Total Culture Center Project Cost: \$6,000,000 Size: \$6,000,000

Completion: 2001 for HVAC, 2010 for FA/Sprinklers
Estimated Energy Savings: Reduced HVAC Operating Costs up to 50%

Lack of humidity control damaged many of the State's priceless artifacts. Books and other State collections were deteriorating rapidly due to lack of proper control of temperature, humidity, and filtration. The occupants had also experienced allergic reactions and discomfort from the long-term high humidity conditions. ZDS identified and designed the solutions. Conserving energy without sacrificing comfort or indoor air quality was a major consideration. The design included converting an all electric resistance heating system to natural gas, comprehensive DDC controls for central monitoring and control, converting AHUs from constant air volume to variable air volume while meeting stringent ASHRAE Indoor Air Quality requirements, providing variable water volume pumping and interfacing with the facility into the new District campus chilled water system to reduce long-term operating costs. The design also included providing a new boiler plant with redundant heating and piping distribution system and an emergency generator to help protect the State's priceless collections.







New Emergency Generator

The mechanical and electrical renovations for the State of West Virginia Library Commission stacks and office spaces were also part of a \$4.5 million dollar HVAC and Electrical Renovations project for the Division of Culture and History. The retrofits saved energy and improved indoor air quality and comfort within the building. The Culture Center renovations are estimated to save nearly \$153,000 annually over the costs of operating the old system.

PARAPET/BALUSTRADE INVESTIGATION MAIN CAPITOL BUILDING

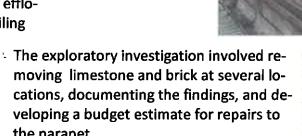
Charleston, West Virginia

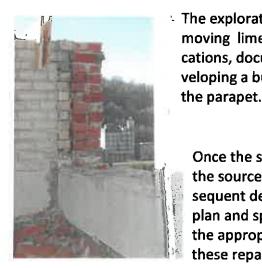
This project was completed and involved an exploratory investigation of the Main Capitol Building parapet and balustrade in an effort to determine the source of movement in the limestone panels. In addition, the leaking that is currently occurring in the upper floor ceilings was addressed. This building is listed on the National Register of Historic Places.



There were a number of locations around the parapet where limestone panels or joints exhibited cracks and significant movement. There was evidence of minor efflorescence within the ceiling







Once the stonework was removed and the source of water infiltration and subsequent deterioration was discovered, plan and specs were developed to make the appropriate repairs. A contract for these repairs was awarded and work is now complete.





STRUCTURAL INVESTIGATION MAIN CAPITOL BUILDING DOME

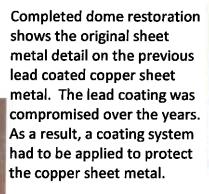
Charleston, West Virginia

The shape of the s

The structural steel in the lantern level shows evidence of deterioration. Project included probing to determine extent of deterioration and preparation of plans and specifications for repairs.

Concrete at the railing level was hidden from view and repaired once the sheet metals was removed and the deterioration was found.

The structural steel after being repaired and the regilding complete. Project included returning the dome to the original Cass Gilbert color scheme.









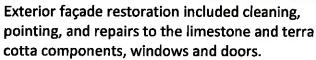
EXTERIOR FAÇADE RESTORATION MAIN CAPITOL BUILDING

Charleston, West Virginia















Portions of the limestone cornice were damaged to the point that they fell when work was being conducted and had to be pinned back in place.

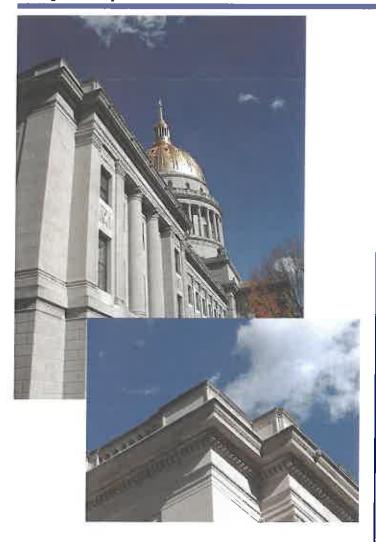


Other repairs included various spall repairs, pinning and epoxy injection of larger cracks and lifting and pinning keystones over windows.





Project Experience



CAPITOL PARAPET WALL REPAIRS

Charleston, West Virginia

This project included an exploratory investigation and preparation of construction documents for repairs to the limestone and brick parapet wall and balustrade at the top of the Capitol Building.



CAPITOL DOME RESTORATION

Charleston, West Virginia

This project included an exploratory investigation and preparation of construction documents for repairs to the structural steel in Capitol Dome.



Project Experience



BUILDING 3 CANOPY REPAIRS

Charleston, West Virginia

Structural design of repairs to existing limestone canopy and supporting structural elements. Discovered that as-built conditions differed from original design documentation



GEORGE WASHINGTON HIGH SCHOOL

Charleston, West Virginia

Structural design of additions to include new 3-story classroom addition, new entrance/commons addition, and new gymnasium addition for Kanawha County Schools.



COVENANT HOUSE

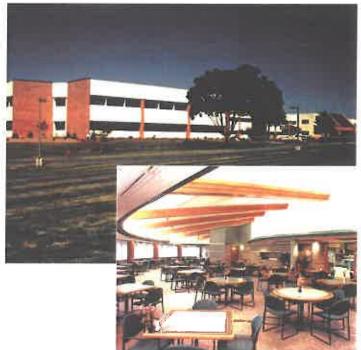
Charleston, West Virginia

This 3-story structure utilized a structural steel frame and light-gauge steel roof trusses for the structural system. The 13,700 SF building was designed to appear as a residential structure, with vinyl siding, asphalt shingles, dormers and gingerbread accents.

Project Experience







JOHNSON AVENUE PROFESSIONAL BUILDING

Bridgeport, West Virginia

Structural design of new 9,400 SF steel framed office building.

YORK COUNTY GOVERNMENT CENTER

York, Pennsylvania

Structural analysis and design of 1898 former department store converted to county government offices. Interior renovations included adding floor framing at mezzanine level, analyzing and redesigning deficient floor framing, and adding new elevators. Exterior renovations included complete façade rework to recreate original appearance.

METROPOLITAN EDISON

Reading, Pennsylvania

The two-story, 5000 SF lobby replaced an outdated 1200 SF lobby and business office. The lobby addition, which serves as a focal piece for the Headquarters Complex, contains several conference rooms and a second floor bridge spanning the width of the lobby. The lobby addition consisted of structural steel framing. An 80,000 SF office addition was constructed during the second phase of this project. A semi-circular cafeteria addition was located at the rear of the complex.

DIVISION OF MOTOR VEHICLES—BUILDING 3 CAPITOL COMPLEX

Charleston, West Virginia



The limestone at the canopy was deteriorated to the point that pieces were loose and ready to fall. The project included an investigation to determine the support conditions for the stone.

During the investigation, it was determined that the support structure was not as shown on the original construction documents.





The repair of this element was completed in 2002.



NORTH PORTICO STEPS—MAIN CAPITOL BUILDING CAPITOL COMPLEX

Charleston, West Virginia

This project consisted of developing a method to repair or replace the deteriorated reinforced concrete stair landing on the north side of the Main Capitol Building. The area was enclosed, without ventilation, since its original construction in the 1930's.



The deteriorated concrete was removed, galvanized metal deck was put in place and a new reinforced concrete slab was poured.







This project was completed while working for a previous employer.

Additional work included epoxy injection of brick masonry, removal and re-laying of brick at the cheek walls and cutting an opening in the brick and granite to install a grill to provide ventilation to the space.

Schedule was a factor due to the Governor's Inauguration that was due to take place in a relatively close time period.



Years of Experience: 40 Years with Chapman: 33

B.S., Landsape Architecture, 1978 West Virginia University

RegistrationArchitect: WV, KY

Affiliations

Council
of Landscape
Architectural
Registration Boards

WV Chapter, American Society of Landscape Architects

Joseph E. Bird, ASLA

Vice President Project Officer

Experience

Joe has been involved in a wide range of projects in his 30+ years of experience. In addition to his landscape architectural design experience, he has served as Project Manager for many major multi-discipline projects ranging from campus development projects to ski area renovations. His experience includes coordinating the efforts of various local, state, and federal agencies.

WV DOH District One Master Plan; Charleston, WV

Project Manager and Designer for the development of a master plan for the West Virginia Division of Highways District One campus to plan for future building sites, pedestrian and vehicular circulation, and the relocation of overhead utilities underground. The project also included the implementation of sustainable stormwater principles including bioswales, pavement infiltration where possible, and underground stormwater detention, to help alleviate chronic flooding which has plagued the project area.

Smith Street Streetscape; Charleston, WV

Project Manager and Landscape Architect for the design of a streetscape project as part of the overall development of the District One Campus project. The plan includes placing overhead utilities underground, new street lights, new sidewalks and curb ramps, and new street trees.

Covington Streetscape Project; Covington, KY

Project Manager and Landscape Architect for the design of seven blocks of streetscape in Covington, Kentucky. The plan includes placing overhead utilities underground, new street lights, new sidewalks and curb ramps, and new street trees. The project also included the design of new traffic signals and pedestrian crossing signals.

Scottsville Streetscape Project; Scottsville, KY

Landscape Architect for the design of two blocks of streetscape in Scottsville, Kentucky. The plan includes placing overhead utilities underground, new street lights, new sidewalks and curb ramps, and new street trees.

WV DOH Alternative Transportation Projects

Project Manager and Designer for the Alternative Transportation and Trail projects throughout West Virginia, including sidewalk projects, streetscape projects, and recreational trail projects. Managed and designed several phases of the ongoing streetscape projects for the City of St. Albans.



Years of Experience: 24
Years with Chapman: 12

EducationB.S., Architecture, 1995 University of Tennessee

Registration Architect: WV, KY

Affiliations

National Council of Architectural Registration Boards

WV Chapter, American Institute of Architects

Awards

Honor Award, WV AIA Upshur County Courthouse

Merit Award, WV AIA I-79 Burnsville Rest Area

Publications

Structure Magazine, February 2010 "A Gem in the Mountains" Upshur County Courthouse Restoration

Phillip A. Warnock, NCARB, AlA Project Architect

Experience

Phill is an award-winning architect with extensive experience, having worked with clients on programming / planning, budget analysis, design, construction documents, meeting coordination, bidding / negotiation services, construction phase services, and code compliance. He is especially skilled in renovation and historic restoration projects for government and municipal facilities.

WV DOH District One Historic Architect; Charleston, WV Responsible for documenting historic structures for submission to the West Virginia State Historic Preservation Office in conjunction with the redevelopment of the District One campus.

WV DOT Rest Areas and Welcome Centers

Project Architect for the design of the prototype rest areas and welcome centers for various locations throughout West Virginia.

State Road Commission Building; Charleston, WV Project Architect for the renovation of the historic State Road Commission Building for the West Virginia Division of Highways. The 40,000 square-foot building houses offices and support facilities for the local highway district. In addition to a complete interior makeover that included a historic information center and radio studio, the building also received new exterior doors, windows, roofing and a new elevator. A skywalk connects the building to a new Headquarters Building that was constructed beside the State Road Commission Building.

District One Equipment Shop Building; Charleston, WV Project Architect for the design of the new \$10 million vehicle equipment shop building for District One which includes multiple service bays, parts storage, welding shop, and offices.

Coal Heritage Discover Center; Mt. Hope, WV

Project Architect for the Coal Heritage Discovery Center, which is a rehabilitation of the historic Patteson Building in downtown Mt. Hope. The Coal Heritage Discovery Center will consist of offices, meeting rooms, an historic information center, a small theater space, a public lobby area, a gift shop, and a small café area. There will also be an outdoor patio which can be used as exterior café seating.



Years of Experience: 17 Years with Chapman: 11

EducationB.S., Architecture, 2001 University of Tennessee

RegistrationArchitect: WV, VA

Affiliations

National Council of Architectural Registration Boards

WV Chapter, American Institute of Architects

St. Albans Property and Maintenance Board

St. Albans Historic District Committee Member

W. Thomas Cloer, III, NCARB, AIA Project Architect

Experience

Tommy has extensive architectural experience, having worked with clients on programming / planning, budget analysis, design, construction documents, meeting coordination, bidding / negotiation services, construction phase services, and code compliance. He regularly provides leadership in architectural design and project management for new building design and renovation projects such as K-12, parks and recreation, and government and municipal facilities.

Philippi Barbour Airpor Multi-tenant Building, Phillip, WV Project Architect for the design of a 7,000 square-foot, one-story, multi-purpose/multi-tenant office and industrial facility. The building was designed as a small Aircraft Maintenance Facility and as such required a sprinkler system that included a 200,000 gallon water tank and a fire pump building. Also included was the development of a 2-acre site, 1.25 miles of DOH roads, parking areas, electrical and power requirements,

Chief Logan State Park Cabins; Davis, WV

and storm, sewer and water systems.

Project Architect for three new cabins at Chief Logan State Park. Each cabin has four bedrooms and a central-living, dining, kitchen area. Wood floors and trim as well as a large stone fireplace give these modern cabins give these cabins an upscale appearance.

Blackwater Falls State Park Cabins: Davis, WV

Project Architect for thirteen new cabins in the environmentallysensitive Blackwater Falls State Park. One of the Goals in Developing the project was to have as little environmental site impact as possible. Each cabin has four bed rooms and a central-living, dining, kitchen area. Wood floors and trim as well as a large stone fireplace give these modern cabins a more rustic feel.

Tube Park Lodge; Canaan Valley, WV

Project Architect for the New Tube Park Lodge and other existing facilities upgrades that were part of a wide range of improvements to the ski area at Canaan Valley Resort State Park. The new tubing lodge features a wood burning fire place, restrooms, a concession stand for hot drinks and an outdoor patio with wood-burning fire pit.



Years of Experience: 32 Years with GRW: 23

Bachelor of Architecture, 1987, University of Kentucky

Registration

Registered Architect: KY, IN, VA, OH, MI, GA

National Council of Architectural Registration Boards (NCARB) Certification

LEED Accredited Professional BD+C

Affiliations

Kentucky Housing, Buildings and Construction Advisory Committee (2016-2017, 2017-2018)

AIA East Kentucky Chapter Board of Directors (2017)

American Institute of Architects (AIA)

Kentucky Masonry Institute Certified Masonry Specialist Steel Window Restoration Seminar, Kentucky Heritage Council

AIA School Facilities Construction A to Z Continuing Education

Jimmy Piper, Jr., AIA, LEED AP BD+C

Architect

Experience

Jimmy has comprehensive architectural services experience, having worked with clients on programming, planning, design, construction documents, bidding, and construction phase services. He regularly provides leadership in architectural design and project management for new building design and renovation projects including higher education facilities, municipal buildings, and historic and cultural renovations.

Relevant Project Experience

Historic Moore Building, Versailles, KY – Project Manager. Schematic studies for a 3,600 SF Family Court Room fit-up in an existing building on historic Main Street.

Berea College Forestry Outreach Center, Berea, KY — Project Manager. New building located in Berea College's forest area adjacent to trailhead of Indian Fort Mountain Trails. Approximate 5,000 SF facility includes classroom, forest history display area, three forester offices, conference room, public restrooms, and care taker apartment.

Berea College Quad Walkway Studies, Berea, KY – Project Manager. Three dimensional design study documents to provide walkway pavement additions and modifications to allow carts and pedestrians to pass without moving off paths. Study provided paving material and layout alternatives, as well as stormwater management solutions.

Scott County Arts and Cultural Center, Georgetown, KY – Project Manager. Design for restoration of an historic county jailer's house (c. 1850) and attached jail (c. 1892), re-purposed as a new county Arts and Cultural Center providing artist and craftsman studio spaces, gallery spaces, kitchen, restrooms, new entry, elevator and stairs, including window openings returned to original size with historically correct windows, and removal of jail cells and floors to make two floor levels with taller ceilings.

HH Owens House - Barbourville Tourism and Main Street Visitor's Center Renovation, Barbourville, KY — Principal. Interior and exterior renovation of historic structure to serve as office to Barbourville Tourism and Main Street Visitor's Center. Existing windows, doors, and hardware were maintained to extent possible and fireplace mantles were restored. Long-missing exterior porch railings were reintroduced, stonework restored, exterior brackets and dentils replicated, as well as recreating trims and moldings that maintain house's original character. New electrical, data, plumbing, sprinkling, and HVAC were incorporated.



Years of Experience: 25 Years with Chapman: 24

Education

B.A., Art and Interior Design, 1993 University of Charleston

Registration

Allied Member, American Society of Interior Designers

Affiliations

Allied Member, ASID

St. Albans Rotary

Thomas Memorial Hospital Foundation

Gabriel Project of WV

Sharon L. Chapman Interior Design

Experience

Sharon has extensive experience in space planning and interior design and has worked on a variety of projects ranging from industrial facilities to high-end professional offices. She offers a unique perspective, understanding the need to provide durable, low maintenance finishes, while enhancing the basic architectural design with just the right aesthetic touch.

Jane Lew Elementary School Addition; Jane Lew, WV Interior Designer for the addition and renovation project that included five new classrooms, and an updated office suite.

Smithville Elementary School Addition; Smithville, WV Interior Designer for the addition and renovation of the Smithville Elementary School project which included the design of a new classroom wing and a new kitchen addition adjacent to the remaining buildings.

Man K-8 Addition; Man, WV

Interior Designer for the Man K-8 Addition which included the design and space planning for a 9,360 square-foot addition to the existing school. The addition included four new classrooms, a 2,400 square-foot gymnasium/multipurpose room, ADA compliant restroom facilities.

Pocahontas Wellness Center; Marlinton, WV

Interior Designer for a community wellness center which included a middle-school size gym and basketball court; a wellness center; two multi-purpose rooms; a racquetball court; and a warming kitchen/concession stand.

Coal Heritage Discover Center; Mt. Hope, WV

Interior Designer for the Coal Heritage Discovery Center which will consist of offices, meeting rooms, an historic information center, a small theater space, a public lobby area, a gift shop, and a small café area.

State Road Commission Building; Charleston, WV

Interior Designer for the renovation of the historic State Road Commission Building for the West Virginia Division of Highways. The 40,000 square-foot building houses offices and support facilities for the local highway district.



Years of Experience: 12 Years with Chapman: 11

B.S., Civil Engineering, 2006 West Virginia Unversity

Registration

Civil Engineer: WV, KY, VA

Affiliations

Chi Epsilon, National Civil Engineering Honor Society

ASCE, Member

David C. Hoy, P. E. Civil/Structural Engineer

Experience

Dave is experienced in the design of various building structural systems including timber, concrete, steel, and masonry construction, as well as foundation design, including deep foundation systems. He has provided structural engineering on a variety of structures including schools, office buildings, recreation facilities, and water and wastewater treatment structures.

WVDNR Elk River and Handley WMA Storage Buildings

Responsible for the structural design of two storage buildings to include a heated maintenance bay, unheated storage bays, and a boat storage bay, along with offices, bunk rooms and support facilities.

District One Equipment Shop Building; Charleston, WV

Project Strutural Engineer for the design of the new \$10 million vehicle equipment shop building for District One which includes multiple service bays, parts storage, welding shop, and offices. Design included pre-cast concrete wall panels, deep foundations to bedrock, and grade beams.

Pocahontas Wellness Center; Marlinton, WV

Project Structural Engineer for a 13,000 square-foot community wellness center, constructed adjacent to but separate from the existing Marlinton Elementary School.

Clay County High School Bus Garage; Clay, WV

Project Structural Engineer for the design of new bus maintenance garage including to maintenance bays, one bus wash bay, parts storage, tire storage, and drivers lounge. Project included inventory of existing equipment and specification of new maintenance equipment. Project included the design of deep foundations to bedrock.

State Road Commission Building; Charleston, WV

Project Structural Engineer for the renovation of the historic State Road Commission Building for the West Virginia Division of Highways. The 40,000 square-foot building houses offices and support facilities for the local highway district.

Tube Park Lodge; Canaan Valley, WV

Project Structural Engineer for the a new timber-frame tube park lodge at Canaan Valley Resort State Park



Years of Experience: 12 Years with Chapman: 9

B.S., Civil Engineering, 2004 West Virginia Unversity Institue of Technology

Registration

Civil Engineer: WV, NC, VA

Affiliations

Water Environment Association

WV American Water Works Association

WV & VA Rural Water Association

Water for People

Stephen (Mike) Johnson, P. E.Civil/Environmental Group Manager

Experience

Mike's overall experience includes planning, design, bidding, and construction administration/management of various public and private water and wastewater systems throughout West Virginia, Virginia, and North Carolina. His specific potable water experience includes distribution systems, river crossings, horizontal directional drills, wells, raw water intakes, treatment plants, water storage tank design, computer modeling, treatment process evaluation, and problem troubleshooting in existing systems.

His wastewater experience includes gravity and low-pressure collection systems, pump stations and force main transmission systems, treatment plant process evaluation and design, trenchless pipeline rehabilitation, bypass pump system design, odor and corrosion control, effluent infiltration ponds, and alternative on-site disposal systems.

WV DOH District One Projects; Charleston, WV

Project Engineer for various site development projects on the West Virginia Division of Highways District One campus, including domestic and fire suppression water systems, sanitary sewer systems, and stormwater management.

WV American Water Company Projects; various locations, WV Project Engineer for the design of water distribution systems, water storage, and wastewater systems for West Virginia American Water Company.



Years of Experience: 28 Years with Chapman: 26

B.S., Landsape Architecture, 1990 West Virginia University

Registration

Landscape Architect: WV, KY

Affiliations

Trustee, WV Chapter, American Society of Landscape Architects

Past President, St. Albans Rotary

Assistant Cubmaster, BSA Pack 146

Member, Sigma Lambda Alpha Honor Society of Landscape Architects

Awards

WV Division of Highways Engineering Excellence: WV Route 10 2013, 2011, 2000 Corridor H 2013

Roger Kennedy, ASLA Landscape Architect Experience

Roger has a very diverse professional background, having been involved in parks and recreation projects, highway design, stormwater management, and trail and streetscape design. Other experience includes the use of various civil design software packages for use in site development and road design, digital terrain modeling, hydraulic analysis and related computer aided design tools, as well as the development and management of the computing resources of the company.

WV DOH Alternative Transportation Projects

Project Manager and Designer for the Alternative Transportation and Trail projects throughout West Virginia, including sidewalk projects, streetscape projects, and recreational trail projects. Current projects include Shepherdstown Multi-use Trail Project, Poca Sidewalk Project, Lewisburg Route 219 Sidewalk Project, Lewisburg L&R Trail Project, Lewisburg Civil War Trail Project.

Chief Logan State Park Cabin Access Road; Logan, WV Project Landscape Architect for a new 1700-foot access road serving three new cabins for the West Virginia Division of Natural Resources. The project included utility design, stormwater management, and extensive erosion and sediment control.

Meadow River Trail; Greenbrier and Fayette Counties, WV Project Landscape Architect for a multi-use rail trail being developed by the Greenbrier and Fayette County Commissions in West Virginia as a Recreation Trail Project administered by the West Virginia Division of Highways. The project includes the rehabilitation of 17 miles of compacted aggregate trail and six railroad trestles, which will be rebuilt to accommodate pedestrian, bicycle and equestrian traffic. After the initial design was complete, seasonal floods damaged the existing trail. Working with FEMA and the County Commissions, the project scope was expanded to include flood damage repair.

WV DOT Highway Projects

Responsibilities include the design of horizontal and vertical road alignments, superelevation design, intersection layout, slope design and quality control review. Projects include several multi-lane highways and bridges throughout West Virginia.

Ted (Todd) A. Zachwieja, P.E., CEM, LEED AP CEO, Principal-in-Charge M/E/P/FP Design and Commissioning

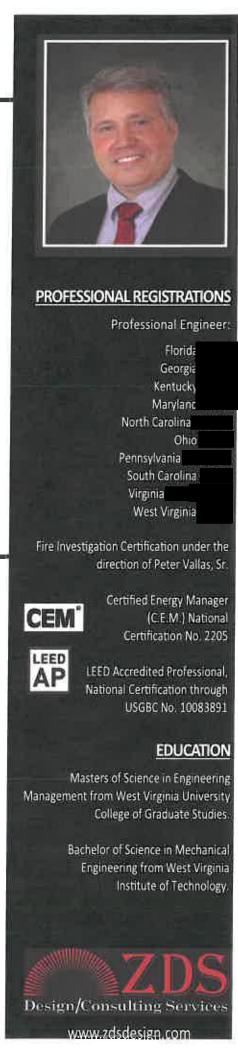
Todd has over 38 years of experience involving the analysis, design, construction management and specifications for mechanical engineering, heating, ventilating, air conditioning, plumbing, fire protection, electrical and lighting, as well as indoor environmental quality analysis, building system commissioning and forensic engineering for educational, governmental, military, commerciai, industrial and health care clients. He is also recognized as a campus master planner for utility infrastructure providing master planning at many Universities, hospitals and the State of WV Capitol Complex.

Prior to starting a consulting engineering firm, Todd Zachwieja coordinated comprehensive energy conservation programs resulting in annual energy savings of millions of dollars. He has managed a profitable regional office for one of the country's largest energy companies that service the southeastern United States. Todd also developed computer modeling programs for building energy analysis and monitoring. He has been invited as an industry leader to present technical papers and speak at professional conferences both regionally and nationally.

Todd selected and designed the pilot project for one of the largest geothermal heat pump applications in the Eastern US including designing custom geothermal rooftop AHU's. He has retro-commissioned HVAC systems for millions of square-feet for facilities located in 10 states. He has been involved with many commercial structures including high-rise commercial building renovations. Todd designed renovations to many existing schools which received *Energy Star Certifications* placing them in the nation's top 25% of energy efficiency schools. *The College Planning and Management Magazine* featured Todd and his work with a major University for the performance contracting programs that save millions of dollars in energy and operating costs. Most projects also qualified for EPAct which requires buildings use over 50% less energy than buildings designed using ASHRAE 90.1.

- Bank One
- Bayer Material Science
- Calvert County Aquatic Center, MD
- Charleston Area Medical Center
- Cass Scenic Railroad Clubhouse, WVDNR
- Coal Heritage Discovery Center
- Culture Center, HVAC & Fire Protection, WV State Capitol Complex
- General Motors Corp. Re-commissioning
- Hopemont Hospital, WVDHHR
- Jackie Withrow Hospital, WVDHHR
- Jackson County Courthouse Annex
- Kanawha County Commission: 120,000 sf Judicial Annex additions/renovations
- Kanawha County Courthouse
- Kanawha County Public Library
- Kohl's
- Laidley Towers
- Marshall University
- Mercer County Courthouse Annex
- Olin Corporation
- Phillip Morris USA
- Pendleton County Courthouse & Annex
- Public Service Commission of WV
- Redmond House, WVDOT

- Rhone-Poulence
- Robinson Grand Performing Arts Theatre
- Santa Anna Federal Building, CA
- St. Patrick's Church
- Sears
- Toyota Motor Manufacturer, WV Inc.
- Union Carbide/DOW
- United Center
- University of Charleston Innovation Ctr
- Walker Machinery
- William R. Sharpe, Jr. Hospital, WVDHHR
- Word Trade Center, MD
- WV Air National Guard including Cx \$45M Fuel Cell/ Maintenance Hangars at Yeager Airport LEED Silver Certified
- WV Army National Guard
- WV Capitol Complex Central Heating Plant
- WV Children's Home, WVDHHR
- WV Department of Transportation/DOH
- WV Division of Protective Services
- WV Higher Education Authority
- WV General Services Division
- WV State Capitol Complex renovations
 WVU Stewart Hall & Wise Library
- Yeager Airport



Ted (Todd) A. Zachwieja, P.E., CEM, LEED AP

CEO, Principal-in-Charge M/E/P/FP Design and Commissioning

PROFESSIONAL AND COMMUNITY AFFILIATIONS

Member of Investigative Engineers Association (I-ENG-A) and founder of I-ENG-A of the Tri-State Region

Past President 2013-14, current Governor - WV ASHRAE Chapter, Served as ASHRAE's Energy and Technical Affairs Chairman for six years. Recognized by ASHRAE Region VII in 2014 with the David Levine Award of Excellence, Presidential Award of Excellence,

Recognized by the International Who's Who of Professionals

Recognized nationally as West Virginia's Business Man of the Year

Recognized by AEE nationally in 2007 as a Legend in Energy

Recognized by AEE nationally in 2008 as a Charter Legend in Energy

Charter Life Member of the Association of Energy Engineers

Professional Affiliate Member of the American Institute of Architecture

Associate Member West Virginia Society for Healthcare Engineering

Member of the International Code Council

Member of the National Society of Professional Engineers

OTHER RECOGNITIONS

Selected by WVU and the WV Division of Energy to train Code officials and the design community on ASHRAE 90.1 State Energy Code

Presented at regional and national conferences including the annual National System Commissioning Conference

Contributing editor and served on the Editorial Review Panel for "The Handbook of Building Management and Indoor Air Quality"

Contributing editor "Ventilation for a Quality Dining Experience"

Contributing editor and served on the Editorial Review Panel for *INvironment Professional, Power Prescriptions* and other publications and articles featuring Indoor Air Quality (IAQ) and MEP engineering systems

Energy Star Certified for facilities in the nation's top 25% of energy efficiency

1st Place 2014 ASHRAE Technology Award, Region VII

LEED Silver Certified WVANG Fuel Cell/Maintenance Hangar, Charleston, WV

LEED Gold Certified Harvard Arboretum, Boston, MA

First ASHRAE bEQ certified building in West Virginia, 2015























Ted Zachwieja III, P.E., CEM

Chief Technical Officer

Ted has over 14 years of experience in building construction design industry. His strategic thinking and development of technical resources at ZDS has helped streamline design processes and improve quality of work office wide. Ted is an innovative problem solver in engineering design, communication methods and management of BIM models between stakeholders during a design project. As a pioneer and a believer in technological processes Ted has championed Integrated Design Practices that has become the fabric of ZDS's day to day operations.

Ted developed ZDS's 3D Scanning services which have assisted in collecting key existing conditions for renovation projects, forensic engineering, historical preservation, and high definition reality capture. Ted has in depth experience on collection, registration, and scan to BIM processes. He has provided training and developed materials for best practices when using 3D scan data. Ted's 3D scanning experience includes governmental, educational, health care, industrial, and commercial facilities. He also has experience in speaking on how 3D laser scanning impacts our industry today.

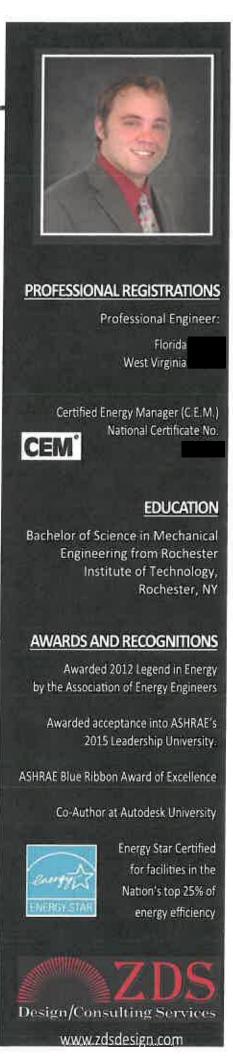
Ted develops, designs and manages the IT systems. The experience encompasses development and deployment of central server systems to networked client computer systems, strategic development for ZDS' Integrated Design Processes, and research and development into new technologies to continue staying on the cutting edge for ZDS and others.

Ted's project experience includes design and commissioning for heating, ventilating, air conditioning, plumbing, fire protection, electrical and lighting systems for educational, health care, industrial and commercial facilities. His experience encompasses working both on new construction and renovation projects. He also is experienced in historical facilities including theatrical.

Ted maintains an active membership to the ASHRAE professional society and also has a lifetime membership to the Association of Energy Engineers. He maintains an active continuing education towards today's standards and codes as well as participates in ASHRAE at both a local and society level. He was recently appointed to the Electronic Communications Standing Committee with ASHRAE. Ted has designed renovations to existing K-12 schools which received *Energy Star Certifications* placing them in the nation's top 25% of energy efficiency schools.

- WV Air National Guard Maintenance Hangar and Fuel Cell Hangar, Charleston, WV – LEED Silver Certified
- Bayer Material Science
- Catholic Church of Ascension, Parish Hall Renovations
- Coal Heritage Discovery Center
- Culture Center, WV State Capitol Complex
- Hopemont Hospital, WVDHHR
- Jackie Withrow Hospital, WVDHHR
- Kanawha County Judicial Annex HVAC Renovations
- Laidlev Towers
- Meadowbrook Rest Areas
- I-70 Welcome Center
- CASCI Building, Charleston WV
- Morgantown Welcome Center
- Pocahontas County Community Center

- Redmond House, WVDOT
- Robinson Grand Performing Arts Theatre
- Servia Rest Areas
- St. Patrick's Church, Weston WV
- Stonewall Jackson Marina
- University of Charleston Innovation Center Additions/Renovations
- William R. Sharpe, Jr. Hospital Additions/Renovations, WVDHHR
- World Trade Center, MD
- WV Children's Home, WVDHHR
- WV Parkways Authority, Toll Booth
- WV State Capital Complex Central Heating Plant
- WVU Wise Library
- White Sulfur Springs Rest Area
- Numerous K-12 School Renovations



James E. Watters

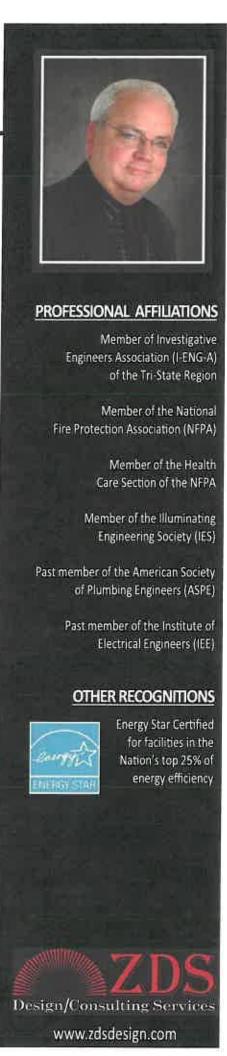
Associate - Production Manager

Jim has over 40 years' experience in design and implementation of HVAC, plumbing and electrical systems including nine years in the construction industry. He has a comprehensive knowledge of construction documents, contracts, and development of cost estimates, budgets and schedules. Jim's strengths reside in his ability to manage projects and people in an organized and cost-effective manner. Jim has been involved with the design and production of mechanical and electrical drawings including HVAC, plumbing, fire protection, lighting, electrical power, fire alarm and specialized systems. He has worked with and managed engineers in projects for health care, educational and commercial buildings in the states of West Virginia, Florida, Maryland, Pennsylvania, Ohio, Kentucky, Virginia, Georgia, New York, Arizona, Illinois and Massachusetts.

Jim has extensive experience in energy savings' programs for HVAC, plumbing and electrical systems in hospitals, state and government office buildings, school systems, and manufacturing facilities, as well as managing performance contracts for a large facility's campus totaling \$10,000,000 in construction costs on various projects, including the conception, design and construction administration for the installation of a 1.5 Megawatt emergency generator. The propane-fired generator and associated switchgear in conjunction with 60,000 gallons of propane fuel storage served to provide peak shaving/load shedding to save on the campus utility costs as well as emergency power functions. Through the years, Jim has researched and implemented into practice International Building Codes, NFPA Codes, National Electrical Codes, Life Safety Codes, IES standards, AIA Guidelines for Design and Construction, and ADA guidelines. His involvement in construction through the years has been mainly from the design side of the industry with a 9 year stint working for a contracting firm at the turn of this century. His experience includes coordinating with Architects, Owners and Agencies including an excellent relationship with the office of State Fire Marshal.

- Bluefield Area Transit Authority
 Administration and Maintenance Facility
- Kentucky Judicial Center, Boyd County
- Coal Heritage Highway Authority
- Chase Towers (formally Charleston National Bank)
- Culture Center Fire Alarm/Sprinklers, WV State Capitol Complex
- Department of Transportation Rest Area prototype
- Department of Transportation Welcome Center prototype
- Fenway Park Lightning Protection/ Grounding Study, Boston
- Glenville State College
- Hopemont Hospital, WVDHHR
- I-70 Welcome Center
- Jackie Withrow Hospital, WVDHHR
- Jackson County Libraries Renovations
- Kanawha County Commission Judicial Annex Renovations
- Laidley Towers
- Meadowbrook Rest Areas
- Morgantown Welcome Center

- Redmond House, WVDOT
- Rhone-Poulenc New Admin. offices
- Robinson Grand Performing Arts Theatre
- Sacred Heart Pavilion and Daycare Ctr
- St. Patrick's Church
- Shawnee Park Clubhouse
- Stonewall Jackson Marina Renovations
- Tucker County Board Office Boiler Retrofit
- Tucker County Courthouse Renovations
- University of Charleston Innovation Ctr
- William R. Sharpe, Jr. Hospital, WVDHHR
- World Trade Center, MD
- WV Air National Guard including Cx \$45M Fuel Cell/ Maintenance Hangars at Yeager Airport – LEED Silver Certified
- WV Children's Home, WVDHHR
- WV Department of Military Affairs, Public Safety Maintenance Facility, Eleanor
- WV Department of Transportation Burnsville Rest Area and Domestic Water Pumping Station—AIA Merit Award Recipient
- White Sulphur Springs Welcome Center



Paul S. O'Dell, P.E.

Senior Project Engineer

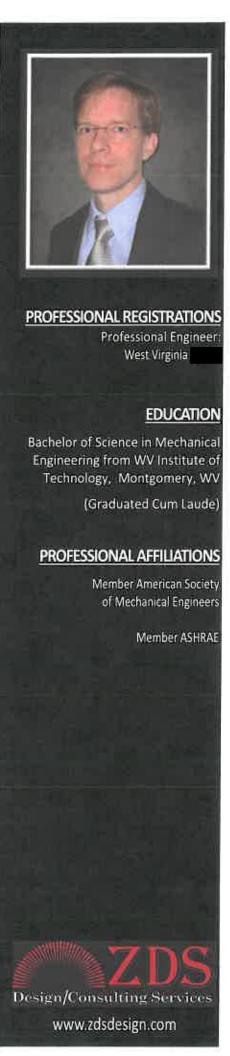
Paul has over 21 years of engineering experience involving the analysis, design, project management, specifications' writing and construction management on many projects throughout the region. This experience includes heating, ventilation, air conditioning (HVAC), plumbing, electrical systems and lighting for governmental, commercial, educational, healthcare, industrial and military facilities. He also has knowledge and experience with indoor environmental quality assessment, recommended remedial work and design of the necessary modifications in various types of buildings.

Paul assisted in the design and implementation of the pilot project for one of the largest geothermal heat pump systems in the mid-Atlantic region. He has also been involved in the design of facilities that have received the Energy Star Certification placing them in the nation's top 25% in energy savings for similar buildings and systems as well as his contribution as part of a large team effort performing mechanical systems' retro-commissioning at numerous automotive manufacturing facilities in North America.

His project experience is wide-ranging and includes the development of scope, design criteria and budget conscious designs. Working with other design professionals and through rapport with the clients he has conducted design peer reviews, construction budget and project schedule overview, Construction Administration and closeout of projects.

- WVARNG Armory/Annex
- Bruceton Bank
- Bank One
- Culture Center, WV State Capitol Complex
- Cuissets Residence
- Camp Dawson barrack/mess hall
- DOT Huntington District II Headquarters Renovations
- Yeager Airport Terminal Expansion/ Renovation
- DOH Testing Lab
- GMC Lordstown Assembly Plant
- GMC Janesville Assembly Plant
- GMC Pontiac East Assembly Plant
- GMC Bowling green Assembly Plant
- GMC Arlington Assembly Plant

- Harrison County Bank
- IMC Office Bldg.
- Kanawha County Commission, Judicial Annex
- WV Capitol Complex Central Boiler Plant
- Appalachian Tire
- Laidley Towers
- Robinson Grand Performing Arts Theatre
- USDA Forestry Building
- University of Charleston Innovation Center Additions/Renovations
- World Trade Center, MD
- William R. Sharpe, Jr. Hospital Additions/Renovations, WVDHHR
- Numerous K-12 School Renovations



Carol A. Stevens, PE, F.ASCE

Structural Engineer



EDUCATION

West Virginia University, BSCE, 1984
Chi Epsilon National Civl Engineering Honorary
The Pennsylvania St ate University, ME Eng Sci, 1989

PROFESSIONAL REGISTRATION

P.E.	1990	Pennsylvania
P.E.	1991	West Virginia
P.E.	1994	Maryland
P.E.	2008	Ohio
P.E.	2010	Kentucky
P.E.	2013	Virginia

BACKGROUND SUMMARY		
2001 – Present	President, Structural Engineer	
	CAS Structural Engineering, Inc.	
1999 – 2001	Structural Engineer	
	Clingenpeel/McBrayer & Assoc, Inc.	
1996 – 1999	Transportation Department Manager	
	Structural Engineer	
	Chapman Technical Group, Inc.	
1995 – 1996	Structural Engineer	
	Alpha Associates, Inc.	
1988 – 1995	Structural Department Manager	
	Structural Engineer	
	NuTec Design Associates, Inc.	
1982 – 1988	Engineer	

PROFESSIONAL ASSOCIATIONS

American Society of Civil Engineers
National Society of Professional Engineers
American Concrete Institute
American Institute of Steel Construction
West Virginia University Department of Civil and
Environmental Engineering Advisory Committee
West Virginia University Institute of Technology
Department of Civil Engineering Advisory Committee

AAI Corporation, Inc.

EXPERIENCE

West Virginia, State Capitol Complex, Holly Grove Mansion: Structural evaluation report for preliminary condition assessment of building structure. Another project included complete analysis of structure for new use. Building is on the National Register of Historic Places and was constructed in 1815.

West Virginia, State Capitol Complex, Main Capitol Building Dome: Exploratory investigation of structural steel components of Lantern Level of dome and development of contract documents for repairs. Building is on the National Register of Historic Places and was constructed in the 1930's. Received a NYAIA Merit Award for Design Excellence.

West Virginia, State Capitol Complex, Main Capitol Building Exterior Façade Restoration: Investigation and preparation of details for repairs to limestone and terra cotta exterior façade. Building is on the National Register of Historic Places and was constructed in the 1920's and 1930's.

West Virginia, State Capitol Complex, Main Capitol Building Parapet: Exploratory investigation of limestone/brick parapet/balustrade of Main Capitol Building to determine cause of movement/cracking/ leaks. Construction contract for repairs has been completed. Building is on the National Register of Historic Places and was constructed in the 1920's and 1930's.

West Virginia, Roane County Courthouse:

Structural analysis of existing floor framing for addition of new high-density file storage system on upper floor level.

West Virginia, Lewis County Courthouse:

Structural investigation for work required to update structure and apply for grant monies through WVCFIA.

West Virginia, Tucker County Courthouse: Structural investigation for work required to update structure and apply for grant monies through WVCFIA.

West Virginia, Boone County Courthouse: Structural analysis of existing floor framing for addition of high-

density file storage systems at different locations.

West Virginia, Gilmer County Courthouse: Structural analysis of existing floor framing for addition of high-density file storage system on upper floor level.

West Virginia, First Presbyterian Church Restoration: Structural renovations of steel in lantern level and terra cotta cornice, overview of repairs to limestone and terra cotta façade of 1920's structure.

West Virginia, State Capitol Complex, Governor's Mansion: Structural analysis and design in addition to evaluation report for modifications and renovations to several areas of mansion. Building is on the National Register of Historic Places and was constructed in the 1920's.

West Virginia, State Capitol Complex, Building 5: Structural design and analysis for support of new boilers and other mechanical equipment to be placed in mechanical penthouse.

West Virginia, State Capitol Complex, Building 7: Investigation and development of Construction Documents for new elevators.

West Virginia, State Capitol Complex, Building 3: Structural design and construction administration of repairs to limestone canopy. Building is eligible to be placed on National Register of Historic Places and was constructed in the 1950's. West Virginia, Upshur County Courthouse: Developed construction documents for structural repairs to main entrance, dome and monumental sandstone columns of 1899 structure. Work was recently completed and received a WVAIA Honor Award for Design Excellence.

West Virginia, State Capitol Complex, Governor's Mansion: Structural analysis and design in addition to evaluation report for modifications and renovations to several areas of mansion. Building is on the National Register of Historic Places and was constructed in the 1920's.

Ohio, Mahoning County Courthouse: Completed preliminary structural observation report of exterior façade conditions to recommended phased repairs for terra cotta and granite façade. Building is on the National Register of Historic Places and was constructed in the early 1900's.

PREVIOUS EXPERIENCE

West Virginia, State Capitol Building, North Portico Steps: Designed structural system to replace deteriorated reinforced concrete slab at landing on north side of Capitol steps. Building is on the National Register of Historic Places and was constructed in the 1930's.

West Virginia, Upshur County Courthouse Annex: Performed structural evaluation and design for repairs to existing multistory Annex addition.

REFERENCES



- Mr. Bradley Leslie, P.E., Assistant Chief WV Division of Natural Resources Parks and Recreation 324 4th Avenue South Charleston, WV 25303 (304) 558-2764
- Mr. Josh Smith, PE
 WV Department of Transportation
 Division of Highways
 1900 Kanawha Boulevard, East
 Charleston, WV 25305
 (304) 887-2325
- Mr. Dirar Ahmad, P.E.
 West Virginia Division of Highways
 1334 Smith Street
 Charleston, WV 25301
 (304) 558-9721
- 4. Mr. John Gerlach
 County Administrator
 Mason County Commission
 200 Sixth Street
 Point Pleasant, WV 25550
 (304) 675-1110
- 5. Ms. Cindy Whetsell County Administrator Lewis County Commission 110 Center Avenue Weston, WV 26452 (304) 668-2566

"Without reservation, I would recommend your Group for future projects." Steve Casto, Lewis County Schools

"Your design, expertise and foresight brought this elementary facility into the 21st century. The diligence and professionalism demonstrated by your staff made the entire construction experience more pleasant and rewarding for all involved."

- David Weekley, Ritchie County Schools

"Iwish to express the appreciation of my department for your work in renovating the third floor of the Morrow Library. We had a thoroughly pleasant experience while you were working on this project."

Lisle Brown, Marshall University

"Your design work has resulted in the renovation of our 32,000 square-foot research and office complex, which has enhanced the facility's appearance and increased the building's energy efficiency. Your attention to detail and the guidance of the contractor made the renovation process painless."

Roger Anderson,
 WV Division of Natural Resources

"Chapman Technical Group has been involved in three projects for us to date. All three were handled by your Group as if it were their only project. Additionally, all three projects were designed expertly and concisely, came in on budget, and managed pragmatically."

- Steve Casto, Lewis County Schools

"It [the addition] was perfect. Not more than we needed, not less!"

- Jamal Kahn, Chairman, IAWV Board of Trustees

Michael Pickens
172 Oak Street
Dunbar, WV 25064
(304) 400-9993

February 1, 2017

RE: ZDS Design/Consulting Services

I have had the privilege to work with ZDS Design/Consulting Services' principals and many of their staff since working at the School Building Authority in the 1990's in my roles at the School Building Authority to my current role as Executive Director of the Office of School Facilities at the West Virginia Department of Education.

When an emergency issue arose, they would immediately make themselves available to help. ZDS's principal, Todd Zachwieja, did not hesitate to board a helicopter during a weekend to help assess the damage to the State's school facilities when damaging floods occurred. Helicopters were the only way to reach many of the facilities because the roads had been washed away or were impassible. Anytime a challenging issue has arisen that no one knew how to resolve, ZDS has stepped up to solve the challenges. Their extensive engineering knowledge of energy efficient systems, HVAC, controls, lighting, power and plumbing systems has always been at the leading edge in the industry, providing innovative solutions that also minimize energy and operating costs. I have always considered their approach in engineering design and commissioning for buildings to be the best and would highly recommend them to anyone.

Their ability to work with the State Fire Marshal and other agencies — while guiding everyone to a practical design approach — always provided each project with the best value. They are much more than excellent design engineers; they also understand the importance of operating and maintaining equipment and have hands-on knowledge to troubleshoot and also commission to ensure our projects were a great success. Their combined engineering design and commission skills prove to be invaluable.

ZDS Design/Consulting Services was also selected to help the WV Department of Education and the School Building Authority in writing new codes and standards to raise the bar for the entire State. They were chosen because their projects were a success while we were having challenges with others. Todd Zachwieja was also asked to teach school facility staff members, and his reference books continue to be used today. I would always think of ZDS first whenever a challenge would occur, knowing I would get the best results possible.

I trust ZDS's staff in their technical expertise and their approach in solving challenging engineering issues and believe that anyone who uses them will be as satisfied as I have been. They are worth it!

Sincerely,

Michael E. Pickens

hite the



ELSWICK & ASSOCIATES, LLC

April 15, 2017

To Whom It May Concern:

I am distinctly honored to provide this letter of recommendation for ZDS Design/Consulting Services to your organization. I have known ZDS's principals and many of their staff since working with Ted and Todd Zachwieja at West Virginia Institute of Technology located in Montgomery, WV, from the 1970's, while I was the Physical Plant Director there. That relationship continues through today. Their knowledge of energy efficient systems related to Heating, Ventilating, and Air-Conditioning (HVAC), Building Automation Systems (BAS), lighting, power distribution, and plumbing systems has always been at the cutting edge of the industry. They have routinely provided innovative solutions to complex design challenges while minimizing energy and operating costs and enhancing maintenance efficiency. I have always considered their approach to engineering design and commissioning systems first for higher education, hospitals and schools to be superior and I would recommend them to anyone.

Throughout my career I have continued my working relationship with Ted and Todd Zachwieja and Jim Watters while I was Director of Facilities Management at Charleston Area Medical Center (CAMC), General Division, located in Charleston, WV. During that time, they provided mechanical, electrical, and plumbing (MEP), engineering, and construction administration services for all areas of CAMC's facilities. Their knowledge of health care code and practical design approach always provided the uniqueness required for the scope of the work. They understood the importance of operating and maintaining equipment and used their hands-on knowledge to ensure all our projects were on schedule and within budget. As a matter of fact, Todd led the first energy services performance contract in West Virginia. Through Todd's leadership, CAMC saved in excess of \$800,000.00 annually in energy costs and those savings were used for mechanical, electrical, and infrastructure upgrades at all three CAMC divisions. Ted, Todd, and Jim also assisted in many other projects at all CAMC divisions, including commissioning the work implemented as part of the energy savings program. Their combined engineering design and commissioning skills proved to be invaluable.

I also worked with ZDS Design/Consulting Services while I was Director of Facilities, Planning and Management at Washington & Lee University in the 1990's. They designed, acted as the construction project manager and commissioned the campus chilled water plant and distribution system to address the needs of the growing campus while fast tracking the project from start to finish in just nine months. I would always think of ZDS first whenever I was faced with a challenge, knowing that I would get the best technical expertise available.

Likewise, ZDS helped establish one of the first performance contracting programs in the State of Ohio's higher education system for Ohio University, saving the Athens campus millions annually while the savings were used for the mechanical, electrical and building automation improvements to generate the savings.

I have the utmost confidence in the technical expertise, the collaborative approach and ethical standards of ZDS Design/Consulting Services. Furthermore, these individuals are truly honorable professionals. In this regard, if you have questions or need additional information, please don't hesitate to contact me.

Sincerely

Bill Elswick, MBA, CEO

Boyd, Gary MA, CEFP

2300 MacCorkle Ave. SE | 304 357-4871 | garyboyd@ucwv.edu

August 11, 2016

To Whom It May Concern

With well earned respect I would like to recommend ZDS as a high quality MEP design firm.

I have had multiple opportunities to work on highly technical projects with Todd Zachwieja and his team of skilled engineers. The first project that I had the opportunity to work with ZDS was a WVU project that connected several older chillers to develop a chilled water loop on the downtown campus. The project included piping through congested areas, load calculations, differential pressure and pump control, and load balancing. This project was designed to become a phased approach to a central chiller plant which is now in operation. The project was efficiently managed and the performance exceeded expectations. As the system changed and older chillers were removed from the loop, Todd always responded to questions and concerns to insure a positive outcome for the overall objective.

At present I am working with ZDS on a University of Charleston project constructing a new Innovation Center and Athletic Complex. ZDS has accommodated many twist and changes to this project. We are on track to open the new facility in December of this year. I have found Todd and his team to be highly responsive and professional.

Sincerely,

Boyd, Gary MA, CEFP Director of Facilities

Dany X. Bayo

University of Charleston



Facility Assessment and Program

This first phase is an important one. Here, we get to know your team and your vision for the facility. We ask questions, research and develop an overall plan for the renovation of Building 4.

GOAL: Develop a comprehensive renovation plan with anticipated phasing, budgets and schedules, looking specifically at the following issues:

Project expectations
Anticipated occupancies and requirements
Building systems requirements
LEED goals and expectations
Code research
Historic building issues
Project schedule
Project budget
Priorities

During the Facility Assessment Phase, we will gather existing information and survey or field measure the building to confirm and supplement existing documentation.

We will also gather as much information as possible regarding the needs and requirements of the potential occupants. At your descretion, this could include interviews with agencies and occupants.

At this phase of the project, we will investigate building codes and standards, and establish the criteria that will be followed as the project is developed further.



First Priority Project Life Safety/MEP Support Facilities

You have identified your first goal – to proceed with the Life Safety, MEP support facilities and other work necessary to support later construction in the building. This phase outlines important criteria for the project.

GOAL: Generate a detailed list of requirements that the project must meet for your end users. This phase is the most important phase and will drive design decisions for the project.

Based on information gathered in the Facility Assessment and Programming Phase, we will further refine the Program and building requirements as we begin to think about specific systems for the building. Though this heavily involves mechanical and electrical design, the entire design team will be involved, including our Construction Consultant for guidance on costs and the development of a logical plan of construction and installation. One the basic systems concepts are confirmed, we will proceed with the actual design of the First Priority Project.

The project will developed in phases to include Schematic Design, Design Development, and full Construction Documents. At each phase of the design the project will be reviewed to ensure that project overall goals, budgets, and schedules are being met.



Bidding and Construction

In this phase of the project, the final team member is brought on board – your contractor. Working together, we make sure your vision is constructed as planned, stays within your budget, and is completed on time.

GOAL: Complete your priority project within budget and schedule.

When we get the green light to bid, we'll assist you with plan distribution, conduct a pre-bid conference, answer bidder questions and issue addenda. We will assist you in the receipt of bids, evaluate the bids, and make a recommendation regarding the award of the contract. This is one of the most exciting parts of the project.

When construction actually begins, we'll be with you throughout the process. We'll get our hands dirty and our boots muddy, but we'll strive to ensure that the contract requirements have been met. We can provide whatever level of construction observation is required, including on-site resident construction observers. We can also provide commissioning services for the HVAC systems to ensure that they are running properly and that the appropriate personnel have been properly trained.

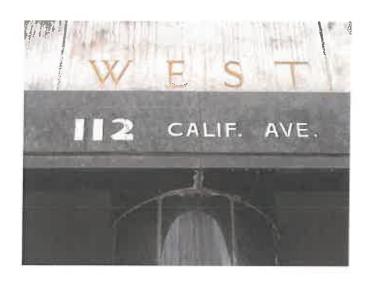


Overall Master Plan

Now that construction is completed, we can continue our look ahead to the next priority on your list. Or, you may decide to start your next priority earlier. In either case, we will continue working your overall master plan.

GOAL: Keep moving forward to your facility is fully renovated.

- Bring next priority project in line based on Overall Facility Program
- Start Program Development and move through same process described above
- Consider the Project Program, budget, and schedule to ensure we are meeting overall goals



You asked...

How will our Qualifications and Project Experience implement your project goals into a completely designed and executed project?

We have an experienced and qualified team. Each member is a qualified professional in their own right — but we have worked together as a team before. You can expect a successful project because you will be working with a successful team.

How will our approach and methodology result in this design be executed?

We systematically review your program with existing conditions, industry codes, current innovations, and future expectations at each stage of design. This continual review process ensures our designers never lose focus of what is important to you – your Program, your budget, and your schedule.

How will we apply our experience, people, and our approach with the already completed survey/design work and phasing requirements?

We have worked with State agencies before and understand your processes. Some of our team members are familiar with Building 4 and its challenges. Our professionals can review the work that has already been completed and quickly determine what additional information is needed to meet your goals. Renovation projects always bring assessment issues; we know that every structure has hidden concerns. Our approach will ensure we get all the information we need to generate effective construction documents. Because your facility must remain occupied, phasing is critical. Our team has worked in situations like this before. Renovation projects bring coordination issues and we've handled them before. We have to work closely with your team, particularly with the OT personnel, to ensure seamless staff relocations and adjustments.