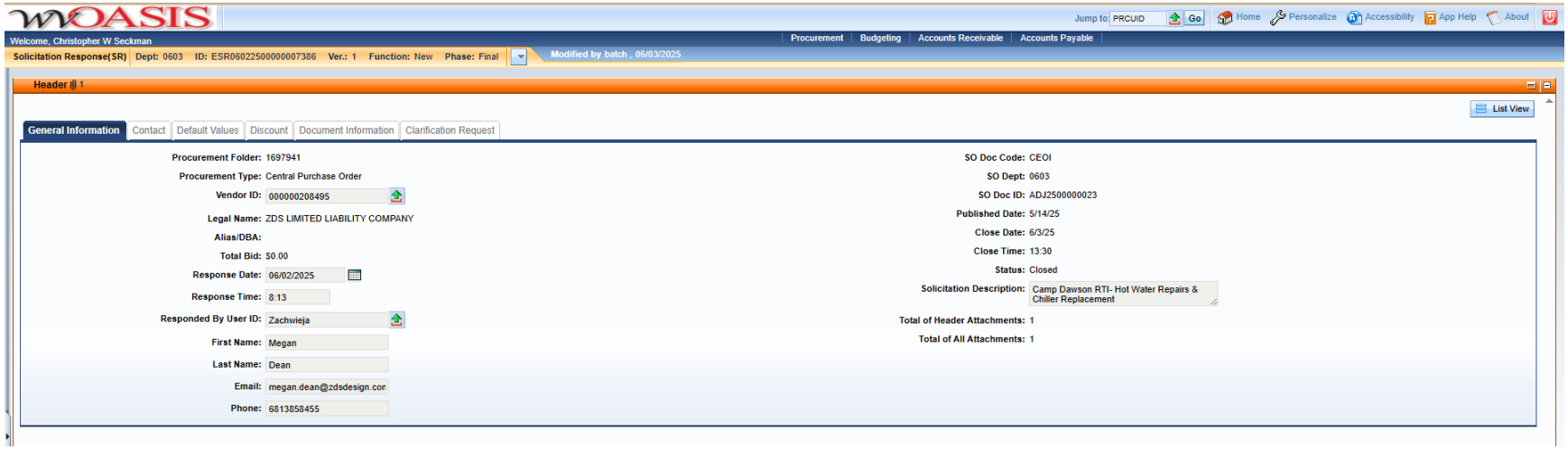
The following documentation is an electronically-submitted vendor response to an advertised solicitation from the *West Virginia Purchasing Bulletin* within the Vendor Self-Service portal at ***wvOASIS.gov***. As part of the State of West Virginia's procurement process, and to maintain the transparency of the bid-opening process, this documentation submitted online is publicly posted by the West Virginia Purchasing Division at ***WVPurchasing.gov*** with any other vendor responses to this solicitation submitted to the Purchasing Division in hard copy format.


WVOASIS
Jump to: PRCUID Go
Home
Personalize
Accessibility
App Help
About
Welcome, Christopher W Seckman
Procurement | Budgeting | Accounts Receivable | Accounts Payable
Solicitation Response(SR) Dept: 0603 ID: ESR06022500000007386 Ver.: 1 Function: New Phase: Final
Modified by batch , 06/03/2025
Header @ 1
List View
General Information
Contact
Default Values
Discount
Document Information
Clarification Request
Procurement Folder: 1697941
Procurement Type: Central Purchase Order
Vendor ID: 000000208495
Legal Name: ZDS LIMITED LIABILITY COMPANY
Alias/DBA:
Total Bid: $0.00
Response Date: 06/02/2025
Response Time: 8:13
Responded By User ID: Zachwieja
First Name: Megan
Last Name: Dean
Email: megan.dean@zdsdesign.com
Phone: 6813858455
SO Doc Code: CEOI
SO Dept: 0603
SO Doc ID: ADJ2500000023
Published Date: 5/14/25
Close Date: 6/3/25
Close Time: 13:30
Status: Closed
Solicitation Description: Camp Dawson RTI- Hot Water Repairs & Chiller Replacement
Total of Header Attachments: 1
Total of All Attachments: 1

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

State of West Virginia
Solicitation Response

Proc Folder:	1697941
Solicitation Description:	Camp Dawson RTI- Hot Water Repairs & Chiller Replacement
Proc Type:	Central Purchase Order

Solicitation Closes	Solicitation Response	Version
2025-06-03 13:30	SR 0603 ESR06022500000007386	1

VENDOR

000000208495
ZDS LIMITED LIABILITY COMPANY

Solicitation Number: CEOI 0603 ADJ2500000023

Total Bid: 0 **Response Date:** 2025-06-02 **Response Time:** 08:13:15

Comments:

FOR INFORMATION CONTACT THE BUYER
David H Pauline
304-558-0067
david.h.pauline@wv.gov

Vendor
Signature X **FEIN#** **DATE**

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

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
1	Camp Dawson RTI- Hot Water Repairs & Chiller Replacement				0.00

Comm Code	Manufacturer	Specification	Model #
81101508			

Commodity Line Comments:

Extended Description:

Provide professional architectural and engineering design services per the attached documentation.

ZDS

Design/Consulting Services

Expression of Interest to Provide Architectural & Engineering Services

Camp Dawson RTI– Hot Water Repairs & Chiller Replacement

CEOI 0603 ADJ2500000023
Due June 3, 2025

MECHANICAL / ELECTRICAL / IAQ / ENERGY / COMMISSIONING

Table of Contents

Section I.

Executive Summary Letter

Project Management, Quality, & Cost Control

Project Goals & Objectives

Section II.

Firm Overview

Section III.

Description of Project Experience

Additional Project Experience Brochures

Section IV.

Proposed Team Staffing Plan

Team Certifications

Team Resumes

Section V.

References

Client Testimonial Letters

Section VI.

Attachments

State of WV Centralized Expression of Interest

Designated Contact Form

State of WV Purchasing Affidavit

SECTION I.

Executive Summary Letter

Project Management, Quality, & Cost Control

Project Goals & Objectives

ZDS 30+ Years of Service
Design/Consulting Services
135 CORPORATE CENTER DR STE 532 / SCOTT DEPOT, WV 25560
(304) 755-0075 / www.ZDSDesign.com

MECHANICAL ● ELECTRICAL ● INDOOR AIR QUALITY ● ENERGY ● COMMISSIONING ● FORENSIC

June 3, 2025

WV Department of Administration
Purchasing Division
2019 Washington Street, East
Charleston, WV 25305-0130

Please accept our Expression of Interest to provide Professional Architectural/Engineering Design Services for the **Camp Dawson RTI – Hot Water Repairs and Chiller Replacement.**

ZDS **Design/Consulting Services** was founded in 1994, and our corporate offices are in Scott Depot, WV. ZDS' principals are "Legend in Energy" recipients from the Association of Energy Engineers, and we have LEED AP-certified staff as part of our proposed Team. The project will be assigned to principal-in-charge of planning/design, who will follow the project from inception through Construction Administration and has full authority to execute a binding contract:

Todd A. Zachwieja, PE, CEM, LEED AP – Principal, CEO
ZDS **Design/Consulting Services**
135 Corporate Center Drive, Suite 532, Scott Depot, WV 25560
Office: 304-755-0075; Mobile: 304-545-4550
Todd.Zachwieja@ZDSDesign.com; www.ZDSDesign.com

Ted A. Zachwieja III, PE, CEM, – Principal, CTO
ZDS **Design/Consulting Services**
135 Corporate Center Drive, Suite 532, Scott Depot, WV 25560
Office: 304-755-0075; Mobile: 304-552-2752
Ted.ZachwiejaIII@ZDSDesign.com; www.ZDSDesign.com

We will provide comprehensive professional services for the proposed **Camp Dawson RTI – Hot Water Repairs and Chiller Replacement.** We have successfully completed numerous projects on the Capitol Complex grounds for the State of West Virginia. Other domestic hot water and chiller projects include Dunbar Armory, Kanawha County Judicial Bld. Renovations, Tyler HS/MS, WVDHHR facilities, William R. Sharpe, Jr. Hospital, University of Charleston, Ohio University, and Washington & Lee University Campus Chilled Water Renovations, as well as cities and counties throughout the state and regionally.

Our proposed Team of professionals has a history of successful projects, including hundreds of facilities within West Virginia and surrounding states. Our team has engineers in Morgantown, WV and in our corporate offices near Charleston, WV.

OVERVIEW OF ENGINEERING AND RELATED SERVICES

ZDS is nationally recognized for our specialties in MEP systems' design, indoor air quality services, energy conservation/performance contracting and commissioning services for Educational, Governmental, Commercial, and Health Care facilities. ZDS has provided engineering services encompassing hundreds of projects and millions of dollars in renovations, new construction, and Performance Contracting heavily involving HVAC systems. Because of our reputation, we have worked in 25 states including Projects from Harvard University in Boston to the Federal Building in Hawaii, but our homes and corporate office are here in West Virginia.

ZDS provides comprehensive design services including Mechanical, Electrical, Plumbing, Energy, BIM, Commissioning, Indoor Air Quality, 3D Laser Scanning, and Expert Witness. ZDS has 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. 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. ZDS recognizes that the maintenance and operating staff live with the design long after the project's completion. 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. The ZDS design team reviews the entire picture and ends with "A Total Design."

ZDS Services encompass many projects and complex systems, including High Performance and LEED projects. Some recent Peer Review/Commissioning projects include $75 million Bldg. #1, #3 & #4 renovations at the WV Capitol Complex, $43 million LEED Silver Certified maintenance hangar/fuel cell facility for the West Virginia Air National Guard at Yeager Airport, a LEED Gold Certified Research facility for Harvard University, and a $45 million addition and renovations to William R. Sharpe, Jr. Hospital for the WV Dept of Health and Human Resources, Weston, WV. We also provide those services for many commercial facilities, schools, hospitals, government agencies, and universities.

We utilize Building Information Modeling (BIM) software as the foundation for tracking and managing the design process; design team members are experienced and proficient and believe in the value of BIM. We leverage BIM software to increase communication between all Team members and facilitate a higher level of coordination throughout each deliverable phase of the process. We believe this is the key to delivering an accurate and reliable project to the Owner with fewer errors and conflicts. We utilize cloud-based tools to keep design models linked together so that changes are effectively communicated live as they occur. Our tools and processes help to minimize unknowns, communicate changes in real time, and maintain a highly efficient production schedule.

ZDS' principals are "Legend in Energy" recipients from the Association of Energy Engineers, and we have LEED AP-certified staff as part of our proposed Team. We have received awards for our energy-efficient design, with many projects being Energy Star Certified and

have the first “Net Zero” 911 facility in operation in West Virginia, which required an integrated design using geothermal, solar, and many max tech approaches to the project.

Our staff has been active in ASHRAE, including serving as President of the WV ASHRAE Chapter, where we received the 1st place Technology Award from ASHRAE’s Region VII, ASHRAE’s Presidential Award of Excellence and Region VII’s ASHRAE Community Sustainability Award. Many ZDS-designed projects also qualify for EPAct, which requires buildings to use over 50% less energy than buildings designed using ASHRAE 90.1 by the 2005 Energy Tax Act. We also received recognition by qualifying for the first ASHRAE bEQ-certified building in West Virginia. Renovations to Riverside High School HVAC, lighting upgrades and roof replacement and received a 1st place ASHRAE Technology Award for its design and performance to meet indoor air quality and comfort requirements. The construction occurred while the school was still operating. “*It is now comfortable for ALL, made for a better learning environment and significantly better Indoor Air Quality*.” Principal, Riverside HS.

The Team will carefully coordinate facility upgrades, whereas occupied areas will be identified and considered during the project scoping and development of project phases. We have proven experience involving building renovations that required close coordination and, in some cases, phasing of the work to avoid conflict with the facilities' daily operations. During the process, we identified and defined the specific criteria for the construction process to help minimize disruption to the facility.

We continue to have an excellent working relationship with the West Virginia State Fire Marshal, WV Department of Education, WV School Building Authority, and other agencies within the State of West Virginia. The State of WV adopted ASHRAE 90.1 Energy Codes, and our team has been an instrumental part of ASHRAE and helped teach the state energy codes while assisting governmental agencies to meet these codes.

Our Team utilizes digital technology to receive, track, manage, and submit documents during construction administration. All construction administration documents are received and logged by our personnel and distributed to the Project Manager and applicable team members. The Project Manager, being most familiar with the project, will oversee and participate in all construction administration duties, both office and field. We create and deliver quality projects by implementing these Quality Control Program strategies, including peer review by multiple design professionals and the principal-in-charge.

Our Team’s efforts in providing professional services have been highly effective in the past as we act on our client's behalf to help bridge the new technologies and management methods into actual operating practices, saving our clients substantial funds in construction and operating costs. We pride ourselves on being viewed as an extension of the client’s staff and successfully incorporating pertinent information about the facility into any proposed solution. While in the design phase, we work with contractors to check for constructability coordination and anticipated construction costs, which have been very successful in our final estimates being very close to the bids received. Our 3D Scan-to-BIM can also be available to Bidders, which has been shown to reduce their bids from 5% to 15% due to the reduction of many unknowns common in renovation projects.

PROJECT MANAGEMENT, QUALITY, & COST CONTROL

We establish Project Teams to complete specific projects. We have engineers who live near Camp Dawson that would allow us to meet your needs and can serve as our interface. Multiple Teams can be assigned to the same client if the magnitude or schedule of the project is required. We also have internal scheduling meetings to review our workload and bring in additional production staff to meet our needs. When our workload exceeds the normal working hours, we also work overtime and weekends to meet the client's schedule.

Conducting Programming, Planning and Design of WVArNG Facilities is important to lay the foundation for MEP projects. Mechanical and Electrical systems may be left out of many Programming and Planning phases of the project, and we often recommend that a feasibility study be performed on most projects. The study typically includes multiple options with preliminary cost estimates which gives the Owner a great deal of input as to budget requirements and types of mechanical and electrical systems available for the project. The study goal is to identify the major cost items in the early phases to assist the Owner in making informed choices.

Quality Control for Design, Budget & Schedule

Our Team's construction documents are among the best in the industry with our 3D Scan to BIM approach to renovation projects. We work cooperatively with quality contractors who use our 3D scans and Revit files to create their fabrication shop drawings. Our 3D Revit drawings of critical mechanical and electrical systems historically resulted in better coordination between trades, aided contractors in visualizing how installation is to occur, and produced more competitive bidding.

We employ several internal processes to ensure completeness and coordination of the design between the various disciplines and to reduce the number of Change Orders. This process has been the core of our design approach. It has an excellent success rate for our complex projects that include steam heating plants, chilled water plants, electrical distribution systems, and other MEP infrastructure improvements. The following processes have been developed by our firm over time and are used on every project.

- ***High Level of Involvement*** - A senior Engineer with extensive experience in multi-discipline projects will be directly involved with the project throughout its duration.
- ***Clear and efficient communications Among a Dedicated Design Team*** - The proper management and supervision of a dedicated design team that does not change personnel is a key element to producing contract documents that are well coordinated, within budget, meeting time schedules, and in conformance with the Owner's requirements and project objectives.
- ***Ongoing Design Reviews*** - In addition to the formal design reviews, we strive to make design review an ongoing part of the design process. We accomplish this by using progress meetings as the key component in constantly aligning expectations between the Owner and the design team.
- ***Constructability*** **Reviews** - In the pre-construction phase our engineers often participate in constructability reviews that check for completeness of design documents and design coordination between engineering disciplines. An

evaluation of the constructability of final construction documents can be performed at this time.

- ***Employing Experienced Field Personnel*** - Utilizing Construction Phase Representatives who understand both the construction phase and the design process greatly aids in the ability to monitor construction and resolve problems effectively. Their efforts consistently avoid unnecessary deletions, substitutions, and change orders.
- ***Adhering to our Quality Control Program*** - Quality Assurance and Quality Control are an integral part of the design process. The objective is the highest consistency and quality achievable in design and document production. It relies on verification of the design procedures, resulting in solutions that match the client's design criteria. The control documentation is intended to be a "traceable" means of "accountability" in the decision-making process.

Budget Control

Our Team looks at alternate funding sources like Utility Grants, Governmental Grants, and Performance Contracting. We aim to make the Owner aware of their options and have as many of their needs met with available dollars as the highest priority. Historically, ZDS's cost estimates have been very close to actual bids due to our effort in this process and by involving contractors in the construction estimating.

Value Engineering and Life Cycle Costing are key components of the cost control program. These tools allow the evaluation of design options using engineering economic analysis. The benefit to the Client is a facility with equal or more utility at reduced cost.

Value Engineering is the continuous review of material to be supplied under the contract for the purpose of identifying and questioning constraints to achieving the required function or objective at the lowest overall cost consistent with the desired performance/appearance requirements. Value Engineering does not always translate to initial cost reduction. Value Engineering also incorporates the review of "value" for the project. This value may involve increasing the initial project cost to save money over the project's life. This action involves the use of Life Cycle Cost Analysis to evaluate the overall system cost and assist in decision-making to select the best system option for the life of the project.

Life Cycle Costing is the continuous review of material to be supplied under the contract for the purpose of evaluating construction costs (first costs) along with costs of operating and maintaining these materials for their expected usable life and finding those materials that have the lowest overall cost consistent with the desired performance requirements. Life Cycle Cost Analysis determines the most effective mechanical and electrical systems for commercial and institutional projects. In addition to Life Cycle Cost, however, the Client often has other criteria that the mechanical/electrical systems must meet. Using a matrix, we compare the priority ranking of the client's criteria with how well the various mechanical and electrical systems meet each criterion. This matrix has proven to be a useful tool in selecting systems that meet all of the Client's criteria, including Life Cycle Costing.

Contractor Input in Managing Costs. If the contractor is known and available during the project design, many cost-saving benefits can be realized by obtaining their input. Contractors usually have good information available that relates to purchasing construction materials. These contractors have purchasing agents who know which products are the most competitively priced. They are also very much aware of important items like product availability, quality, and realistic delivery schedules. In many cases, the contractors have

years of experience maintaining the items purchased for a new project. With this information, the contractor can provide accurate maintenance track records for various types of equipment. API of this information is used in the Life cycle costing and the value engineering efforts that take place in the early stages of design.

When a construction contractor is working as a partner with the design team, the contractor will become actively involved with the life cycle costing and the value engineering effort as described. Contractors also have purchasing agents skilled at expediting high-quality materials at a reasonable cost. The input of these personnel is quite valuable during all stages of design. Their suggestions and comments can often be incorporated into the design documents. Within this scenario, labor-saving techniques become part of the design. Our firm welcomes the opportunity to partner with experienced cost estimators and construction supervisors during the design portion of the project.

Meeting Project Schedules

Vital to any well-organized project is an orderly procedure to coordinate efforts and meet schedules. Proper scheduling and control enable the Project Team to address project essentials during any project phase to prevent needless duplication of effort or lost time waiting to develop information that may be critical to workflow. To facilitate meeting project schedules, we incorporate the following strategies:

- Regular communication between the Project Team and the Owner's engineering staff.
- In-house progress review meetings, Principal-in-Charge evaluation.
- Weekly Team scheduling meetings for coordination and allocation of resources.
- Contact appropriate personnel when reviews from the Owner’s staff are not returned by the scheduled date.
- Construction schedules must be compiled and updated on a regular basis to permit the identification of both potential conflicts and opportunities, which when addressed early enough in the process, provide for a project completed within the desired time frame. Schedules must include milestone dates which are used to monitor construction

When authorization to proceed has been received, the Principal-in-Charge and/or Project Manager (PM) meets with the Client and user group to establish the project scope and specific completion milestones. Afterward, an initial project scheduling meeting is held where the PIC, PM, and key consultants establish a realistic timetable, estimate staff hours, identify the specifics of key project requirements, and outline the efforts of each discipline.

At the start of each project, the Project Manager enters the starting date, completion date, estimated staff hours per discipline, and total fee for the project into a database. A weekly job scheduling report tracks the project as percent complete and staff hours expended.

Another method we use to monitor design schedules is through Gantt charts using Microsoft Project software. This database depicts lead and lag time relationships between tasks, project milestones, critical and non-critical tasks, and priority levels. As the project progresses, the Project Manager inputs the completion percentage for each task and can adjust resources, tasks, or the schedule as necessary. The resulting charts and reports advise of any work slippage or over-allocated resources that require attention. This schedule control assures that project submissions and completion dates are met and provides a current and continuous status and work effort projection.

Supply Chain Challenges Impacting Design, Schedule, & Budget

Today's supply chain challenges require the client and design team to be flexible and consider deviations from design and schedule, which often impact the budget. Material delays often result in the need to quickly evaluate alternate solutions or material selections to keep the project on schedule. These alternates must be weighed on their impact on quality and the budget. Our team has successfully been navigating those challenges in recent years. We have worked with Owners and contractors to resolve these deviations to the Owner's satisfaction and have communicated their impacts to the team.

Phase Construction: Our extensive experience with phased construction was incorporated into the design and bidding documents for many projects. William R. Sharpe, Jr. Hospital is an example where the occupants (patients and staff) needed to continue to use the hospital while the facility was renovated. It involved all the facility's HVAC systems that needed to be maintained. Our construction documents included the design for the entire facility with areas identified in phasing blocks. The hospital remained occupied and operational throughout the approximate 3-year process of providing all new piping, equipment, and ductwork systems. Our Construction Administration services included coordination and working closely with the Contractors and the Owner throughout the multiple phases of the construction period.

Energy Efficiency: ZDS' principals are "Legend in Energy" recipients from the Association of Energy Engineers, and we have LEED AP as part of our proposed team. We have received awards for our energy-efficient design with many projects being Energy Star Certified. We have the first "Net Zero" 911 facility in operation in West Virginia which required an integrated design using geothermal, solar, and many max tech approaches into the design. ZDS has worked with many performance contractors where the results realized, and sometimes exceeded, the project goals.

The ZDS team members have been involved in numerous LEED Certified, Silver, and Gold projects (or applying LEED principles) including Harvard University's Arnold Arboretum Weld Hill Research – LEED Gold, UC Davis Veterinary Medicine's Gladys Valley Hall, and WVANG Aircraft Maintenance and Fuel Systems Hangars and Shops – LEED Silver

Our staff has been active in ASHRAE including serving as President of the WV ASHRAE Chapter, where we received the 1st place Technology Award from ASHRAE's Region VII, ASHRAE's Presidential Award of Excellence and Region VII's ASHRAE Community Sustainability Award. The College Planning and Management Magazine featured ZDS and our work at Ohio University for the performance contracting programs that have saved millions of dollars in energy and operating costs. Many ZDS-designed projects also qualify for EPAct which requires buildings to use over 50% less energy than buildings designed using ASHRAE 90.1 in accordance with the 2005 Energy Tax Act. ZDS also received recognition by qualifying for the first ASHRAE bEQ certified building in West Virginia and encompassing ASHRAE Region VII which includes 11 states.

PROJECT GOALS & OBJECTIVES

GOAL/OBJECTIVE 2.1. Provide a complete design including all engineering, including mechanical, electrical and plumbing and architectural disciplines to prepare construction bid documents for West Virginia State Purchasing. Key design elements include diagnosis and repair of hot water issues and the replacement of existing chiller(s). Replacement of chillers will require review of the existing chiller space to ensure all warranty requirements are met and any utility relocation is accounted for.

ZDS **RESPONSE:** We provide the evaluation, schematic design, design development, procurement, and construction administration to meet your goals and objectives as we have for previous projects with West Virginia State Purchasing.

Our founders have specialized in energy conservation design in hundreds of millions of dollars in renovations, new construction, and Performance Contracting heavily involving MEP systems, including obtaining grants for many projects and saving facility owners millions annually. Some projects include the new "Net Zero" Tyler County 911 Center, where the amount of energy produced exceeds the amount of energy used by the facility, and 45 million dollars in renovations to William R. Sharpe, Jr. Hospital that was phased to allow the hospital to remain in operation throughout the construction process. Our engineering designs have received the EPA's Energy Star® Certification, where these buildings perform in the top 25 percent of similar facilities nationwide for energy efficiency while meeting stringent ASHRAE standards.

ZDS resolved domestic hot water distribution issues at William Sharpe Hospital through balancing efforts of the entire domestic water system that includes thermostic valves, booster pumps, and considered the utility water supply and water tower location. In this project, ZDS successfully addressed the domestic hot water (DHW) distribution challenges at William Sharpe Hospital by implementing a comprehensive system optimization strategy. The hospital had been experiencing inconsistent hot water delivery, pressure imbalances, particularly during peak usage periods, and in remote zones. To resolve these issues, we began by conducting a detailed assessment of the existing DHW system, including the utility water supply characteristics and the physical layout of the facility—particularly the location and elevation of the water tower. This analysis revealed that pressure drops and temperature inconsistencies were largely due to unbalanced flow in the recirculation loops and insufficient control over temperature regulation across thermostatic balancing valves due to excessive pressure differential between the domestic hot water supply and domestic cold water supply. A critical component of the project was where the system was fine-tuned during the commissioning and system balancing phase. Special consideration was given to the utility water supply pressure and the elevation of the water tower, which influenced the design of pressure zones and the placement of pumps and valves. By accounting for these factors, the hospital receives reliable hot water delivery even during peak demand and in remote areas of the hospital.

ZDS provided professional engineering design, bidding, construction administration, and commissioning services for HVAC upgrades at the Tyler Consolidated Middle/High School to meet Indoor Air Quality and today's energy codes. The demolition and new work to be included in Phase I of the project included two (2) new highly efficient chillers piped so they

could be used even during winter months, three (3) new high-efficient condensing boilers, variable water volume hydronic pump system, VAV Air Handling Units, VAV Blower Coil Units, Fan Coil Units, Energy Recovery Ventilators, DDC control upgrades, select new hydronic piping and ductwork for the equipment, exhaust fans, electric work associated with serving the new HVAC system equipment and new electrical panel-boards. Domestic water heater system upgrades high-efficiency condensing domestic water heater, circulation pumps, and integration with the BAS where the domestic hot water supply and return water temperatures are constantly monitored.

GOAL/OBJECTIVE 2.2. If required the designer shall provide all geotechnical work to include any necessary drill borings, designer shall be responsible for researching and investigating the location of existing utilities, and to provide drawings and specifications of any and all aspects of project as needed and directed by the owner and/or state agency, utility company or other approval authority for Kingwood, West Virginia.

ZDS **RESPONSE:** We provided those services for the General Services Divisions for the WV Capitol Complex by identifying existing underground utilities, land survey to locate them on campus for the central chilled water, campus heating systems, campus gas/electric underground services, site lighting, fiber optic cabling and others serving the campus for renovation projects all under ZDS's direction. We also designed geothermal HVAC systems where drilling vertical wells and impact on site utilities were carefully coordinated.

Many facilities have asked for our advice on challenging renovation projects due to our professional and forensic engineering background, which provides the skills to effectively communicate with others in a way that will help to identify and resolve the issues with coordination and integration of new systems and researching and investigating the location of existing utilities. We will provide assessments, compliance reviews, and preliminary studies to support project stakeholders in developing the project scope for **WVArNG**. Field investigations of the existing mechanical, electrical, and plumbing systems and the potential impact on other building elements will be performed and compiled with existing facilities' reports and drawings to assist in making informed decisions. Close coordination with the **WVArNG** representatives is essential to address immediate needs while planning for long-term upgrades, as necessary. We can team with a civil consultant as needed to handle a specific scope as necessary for geotechnical work, drill borings, laboratory testing, and preparation of a comprehensive geotechnical report.

Our team can provide a 3D scan survey to determine current site conditions and coordinate proposed modifications to the facility. 3D scanning is utilized to capture built conditions with high degrees of accuracy and is faster than traditional methods. We then have our design team review the 3D scan data and all existing documentation available to create the basis for what we know about the facility. Having high-quality information early in the process leads to a synergic design approach; our 3D Scan to BIM process is that proven approach. Our team will incorporate the 3D scan data to develop a 3D Building Information Model (BIM) to coordinate with all the stakeholders throughout the project's life.

GOAL/OBJECTIVE 2.3. Drawings and specifications are to be submitted at 30%, 60%, and 100%, cost estimates are to be revised and submitted with each submittal at 30%, 60%, and 100%.

ZDS **RESPONSE:** We have worked with the WVANG and WVArNG on previous projects and are familiar with the submission requirements. We have also been very successful in our estimates being in line with actual bids. We have designed and coordinated upgrades

for projects of all sizes, budgets, and schedules. We have managed new construction and renovation projects through dialogue and proper planning with the Owners and Contractors to phase the work successfully and minimize the impact on the occupants' daily activities. We will communicate closely with the appropriate **WVArNG** representative(s) to ensure that our approach to the Project will address your needs and concerns. Realizing the similarity of our mission and the desire to serve West Virginia clients, we will be honored to work with you.

Our Team's efforts in providing professional services have been highly effective in the past as we act on our client's behalf to help bridge the new technologies and management methods into actual operating practices, saving our clients substantial funds in construction and operating costs. We pride ourselves on being viewed as an extension of the client's staff and successfully incorporating pertinent information about the facility into any proposed solution. While in the design phase, we work with contractors to check for constructability coordination and anticipated construction costs, which have been very successful in our final estimates being very close to the bids received. Our 3D Scan-to-BIM can also be available to Bidders, which has been shown to reduce their bids from 5% to 15% due to the reduction of many unknowns common in renovation projects.

GOAL/OBJECTIVE 2.4. Provide construction bid services and administrative services to the Owner.

ZDS **RESPONSE:** Our team actively monitors construction progress, enforces contract compliance, facilitates stakeholder communication, and promptly addresses any issues that arise to meet the quality, cost, and schedule objectives. In addition, our commissioning services play a critical role during construction, verifying that all building systems are installed, tested, and operating according to the project's performance requirements. By integrating commissioning early and throughout the construction phase, we help identify and correct issues before they become costly, ensuring a smoother turnover and long-term operational efficiency for your facility. We have successfully worked with the WV State Purchasing Division to prepare documents to procure competitive bids from potential contractors and provided Construction Administration services through the completion of the projects. Governmental agencies we have experience with include, but are not limited to, the following: WV General Services Division, Kanawha County Commission, WV Dept of Education, WVDHHR, WVDNR, WVANG, WVARNG, WV Higher Education Policy Commission, WV Public Service Commission, WV DOH, Dept. of Environmental Protection, and the US Department of Justice, as well as many city government agencies and most WV County Schools' systems.

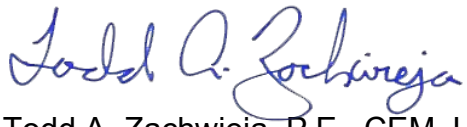
Our Team has an excellent track record of completing projects on time and within budget guidelines. We are ready and willing to start immediately on your project and are confident that our specialties will provide you with the best expertise to implement the proposed upgrades. We look forward to discussing our qualifications, and if there are any questions, please do not hesitate to call.

With its consultants, ZDS Design/Consulting Services has registered professionals in all the required disciplines to execute the project's requirements effectively.

- **MEP Engineering**
- **Commissioning**
- **Civil Engineering**
- **Energy Engineering**
- **Civil Engineering**
- **Structural Engineering**
- **Architectural Services**

Our Team has years of experience and the best expertise to provide the services to fulfill your specific project's needs. Our professional services efforts have been highly effective in the past. We have acted on our client's behalf to help bridge the new technologies and management methods into actual operating practices, saving our clients substantial funds in construction and operating costs. We pride ourselves on being viewed as an extension of the client's staff and successfully incorporating pertinent information about their facility into any proposed solution. Please feel free to contact any of our references about our work. We have an excellent track record and are ready and willing to start on your Project. If there are any questions, please do not hesitate to call.

Sincerely,



Todd A. Zachwieja, P.E., CEM, LEED AP
Principal, Chief Executive Officer

SECTION II.

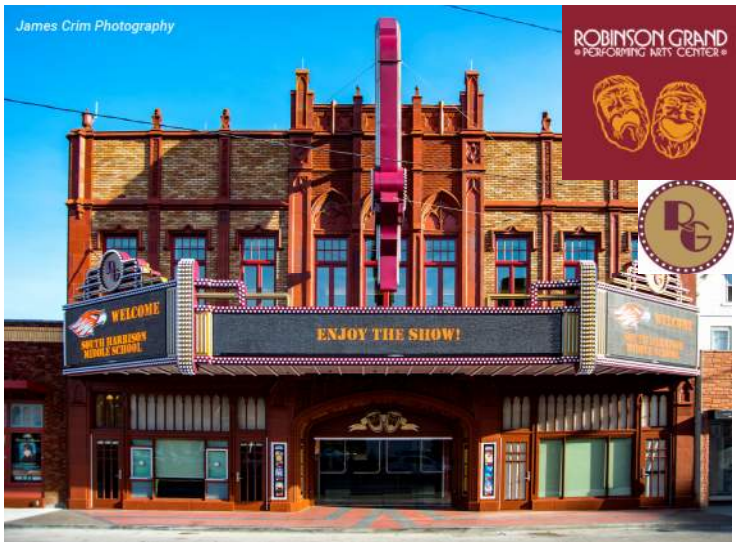
Firm Overview

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.

FIRM LOCATION

135 Corporate Center Drive, Suite 532
Scott Depot, WV 25560

EMPLOYEES

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

COMPANY OVERVIEW

CLIENTS & EXPERIENCE

- 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
- Tyler County 911 Center - ***Net Zero***
- General Motors North America Operations
- Harvard University Arboretum Lab
- Hopemont Hospital, WVDHHR
- IMC Data Center
- Jackie Withrow Hospital, WVDHHR
- Kanawha County Commission Courthouse & Judicial Annex
- Kanawha County Metro 911
- Laidley Towers
- Marshall University Harris Hall & Smith Hall
- Meadowbrook & Burnsville Rest Areas, WVDOT
- Mercer County Courthouse
- Pendleton County Courthouse & Annex
- Pocahontas County Community Center
- Pocahontas County EMS 911 Center
- Robinson Grand Performing Arts Theatre
- St. Patrick Church Renovations
- Tyler County Commission Courthouse
- Tucker County Courthouse
- University of Charleston Innovation Center
- Veterans Administration
- Webster County Development Authority
- White Sulphur Springs Welcome Center
- William R. Sharpe, Jr. Hospital, WVDHHR
- World Trade Center, MD
- WV Air National Guard
- WV Army National Guard
- WV Chief Medical Examiners Office Renovations
- WV Dept. of Education - State wide PreK-12 Schools
- 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 Health
- WVU Morgantown Campus
- WVU Tech (Montgomery Campus) Engineer Bldg.
- WVDOT Lab

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.

ZDS' organization has an unbeatable, long running, and well-known track record for meeting our clients' needs, on time and within budget, with outstanding quality. ZDS 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.

INDOOR AIR QUALITY SERVICES

ZDS provides consulting engineering services for the indoor air quality (IAQ) environment. These services include: strategic planning for renovation and new construction projects; technical research and writing; specialized applications software development; corporate and professional training programs; publications support and fulfillment; and site-specific engineering and scientific consultation. Todd Zachwieja, ZDS Principal, is contributing editor for the following IAQ publications:

- Technical Review Panel for the publication of the *INvironment™ Handbook of Building Management and Indoor Air Quality*, by Chelsea Group and published for Powers Educational Services
- Technical Review Panel for the quarterly publication of the *INvironment™ Newsletter*, by Chelsea Group for Powers Educational Services
- *Ventilation for a Quality Dining Experience: A Technical Bulletin for Restaurant Owners and Managers*, released in January 1993
- *The New Horizon: Indoor Environmental Quality*, published as a supplement to an issue of *Consulting-Specifying Engineer* magazine, a trade magazine distributed to roughly 50,000 engineers
- Editorial Advisory Board member reviewing the articles of the monthly publication *INvironment™ Professional*
- Editorial Advisory Board member of POWER PRESCRIPTIONS™ *Indoor Air Quality Publication* by Electric Power Research Institute

ZDS provides Indoor Air Quality (IAQ) services for major corporations, government organizations and property owners to resolve their specific facility problems:

- Resolve "sick building syndrome"
- Identify solutions to building-related illnesses due to extensive biological contamination
- Develop solutions for HVAC systems, temperature controls, equipment, operating and maintenance practices for indoor air quality
- Commission new and renovated facilities to minimize or eliminate IAQ issues before problems arise
- Develop and establish master plans as well as conduct training seminars for IAQ of schools and commercial buildings

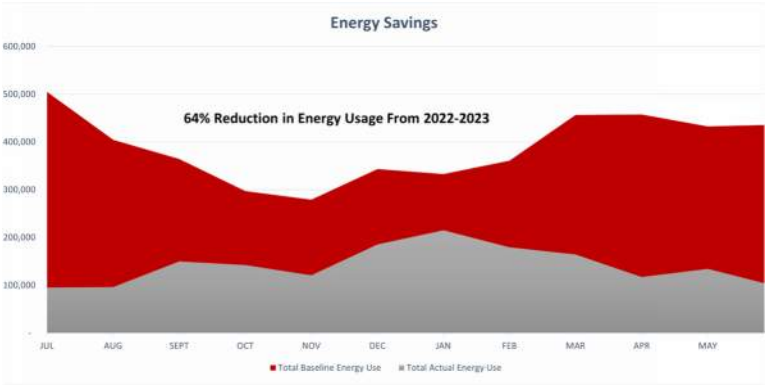
As one of the nation's leaders in Indoor Air Quality (IAQ), ZDS provides sophisticated technical expertise that enables our client to be proactive in solving and preventing indoor environmental problems.

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 team approach represents a tremendous amount of experience 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 and 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 systems
- Modifying air handling equipment from 100% outside air to return air operation
- Implementing heat recovery units into HVAC equipment
- Improving laundry, kitchen and other process application efficiencies

In addition to the energy management projects outlined above, the ZDS 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 HVAC system controls operation.
- Testing steam traps and pressure relief equipment operation.
- Enabling heating and cooling equipment only when required.

ABOVE: ZDS designed and implemented a geothermal system for ***Riverside High School in Kanawha County*** showing a ***reduction in energy use of over 64% with an EUI of 30.6 from an EUI of 84.***

3D Scan to BIM Services
BIM Collaboration

Why 3D Laser Scanning is Better

3D laser scans can be beneficial with NEW construction projects by capturing concealed elements during construction before they're concealed. 3D laser scans also provide superior details with data that is more comprehensive.

"With the 3D laser scanning service, ZDS saved me countless hours communicating with all project team members, even those who work or live far away. Also, we now have an accurate record of the existing conditions that we can rely on for future projects." - Retired COO of WV DHHR

3D allows facility owners to view and measure areas with others on their planning and construction team.

Real-time, anytime, anywhere access with co-authoring ability!
Brings **teams** together for the highest level of collaboration.

ZDS
Design/Consulting Services

COMMISSIONING

The Prince Jonah Kūhiō Kalaniana'ole (PJKK) Federal Building and

United States Courthouse

Honolulu, Hawaii

130th Airlift Wing at Yeager Airport, Phase I and Phase II: Aircraft Maintenance Fuel Systems Hangars and Shops

Awarded a **LEED Silver Certification** for each of the two phases

"ZDS's commissioning services were invaluable in helping us understand our facility and ensure the systems were installed as intended and optimized for long-term operating benefits. We would recommend them again!" - **Captain Harry Netzer, WVANG Project Manager**

Harvard University
Arnold Arboretum Weld Hill
Research and Administration Building

LEED Gold Certified

- ✓ CAMC General Division, Memorial Division & Women & Children's Hospital
- ✓ General Motors (GM) of North America
- ✓ Maryland – Calvert County Indoor Aquatic Center
- ✓ Montgomery County Departments of Correction and Police
- ✓ Roane General Hospital, WV
- ✓ Ohio University – Chillicothe Campus, Stevenson Library and Bennett Hall
- ✓ Santa Ana Federal Building Renovations
- ✓ University of California, Davis School of Veterinary Medicine Instructional Facility
- ✓ Washington & Lee University
- ✓ William R. Sharpe Jr. Hospital
- ✓ WV Museum of Culture and Natural History
- ✓ WV State Capitol Complex
- ✓ WVU—Downtown Campus
- ✓ United Hospital Center

ZDS

SECTION III.

Description of Project Experience

Additional Project Experience Brochures

State of West Virginia Capitol Complex Charleston, WV

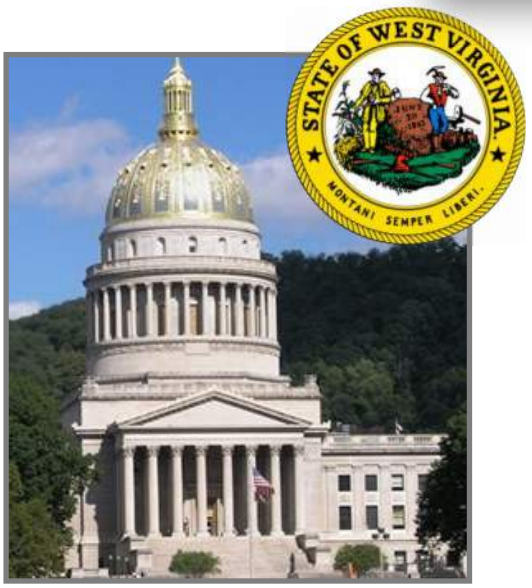
Project Cost: $75,500,000

Size: 1,900,000 ft^2 covering 9 buildings

Date Complete: 1995 to current for latest project

HVAC Renovations, Fire Protection, Peer Review/Commissioning, Electrical Renovations, Consultant for Performance Contracting

Client Reference:
Patrick O'Neil, Project Manager; Patrick.S.ONeill@wv.gov



Numerous design and renovation projects for the WV State Capitol Complex including 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 for many facilities on the WV Capitol Complex:

WV Division of Protective Services: Engineering master planning & design for specific life safety issues involving homeland security, fire alarm, sprinklers, emergency power, CCTV, intercom, mass notification and "giant voice" system for all State facilities on the Capitol Complex under a 10-year open-end contract.

WV Division of Culture and History Library: Renovations addressing long-term HVAC and IAQ problems, including fire alarm and fire protection upgrades, were completed in 2011. Renovations conserved energy without sacrificing comfort or indoor air quality.

District Heating System: As a consultant to Johnson Controls under a Performance Contracting program to provide master planning and design for the district heating system for the WV Capitol Complex. The project included the Master Planning, IAQ evaluation, energy analysis, code analysis and Mechanical design involving more than 1,900,000 ft2 of facilities including the Capitol Building, Building's #3, #4, #5, #6, #7, Holley Grove, Governor's Mansion and the Culture Center. Master planning & design for central heating plant, DDC controls, Air Handling Unit replacements and retrofits, operating and maintenance, training, heat recovery, fuel conversion, VFD's, variable water volume pumping, steam/heating hot water & chiller optimization, condensate pumping, and steam trap upgrades. ZDS performed 3D scanning and created record drawings for future renovations.

Bldg. #4 Peer Review/Cx: ZDS team provided Design Peer Review during the design phase and commissioning services during the construction & acceptance phases of this project to ensure seamless integration, superior functionality, and efficient operation of the major HVAC systems and BAS controls, driving WV Capitol Complex Building #4's success in achieving high-performance standards. The Building is equipped with a Central boiler plant, a Chilled water supply, Dedicated Outdoor Air Systems (DOAS) that supply fresh air to the entire building, and chilled & hot water terminal units. ZDS completed the $28,574,000.00 Project Completed in 2025.

The ZDS team conducted a detailed peer review of the drawings and specifications during the design phase to ensure the project's success. This process involved a systematic evaluation of the proposed designs to verify compliance with industry standards, energy efficiency goals, and the client's vision. By scrutinizing the central boiler plant, chilled water supply, Dedicated Outdoor Air Systems (DOAS), and 4-pipe terminal units, we identified opportunities to optimize system integration, improve operational efficiency, and enhance long-term reliability.

Collaboration with the design team was a cornerstone of this phase. Through regular meetings and open communication channels, we worked closely with the Architect, Engineer, and other stakeholders to refine design strategies. Our team provided actionable feedback, addressing potential challenges, and exploring innovative solutions to maximize performance. Our team actively led commission activities during the construction phase to ensure that the Building's HVAC systems were installed and configured according to the design intent. As the project neared completion, our team shifted focus to verifying and fine-tuning system performance by conducting functional performance tests, coordination, and deficiency identification, resolution & documentation.

House Chambers HVAC/Cx: Planning, engineering & design, and construction administration for new supply air fan wall and return fan controls and sequencing with remote new DOAS unit that uses an extension of the existing natural gas service so the DOAS system is not dependent on the steam heating system and is capable of year-round operation. Estimated $1,250,000.00 Project on-going with ZDS, and 2026 completion.

Multiple Elevator Modernizations: MEP evaluation, planning, and opinion of costs for 33 elevator modernizations at 13 buildings for GSD including documenting existing MEP systems and 3D scanning of Bldg. #1, Bldg. #3, Bldg. #6. Estimated $19,275,000.00 Project on-going with ZDS and anticipated to occur over six years.

The Capitol Complex renovations are estimated to

save nearly $2,000,000 annually

over the costs of operating the old systems.

Kanawha County Schools

Riverside High School HVAC/Lighting Renovations

Riverside High School, built in 1997, the academic wing's HVAC system consisted of four large Dual Duct custom Rooftop units and gas-fired packaged DX rooftop units to serve the other areas of the school. The Dual Duct HVAC equipment was unique to the County and the only school to have this HVAC system type, challenging the maintenance department. The school went through a Performance Contracting Program around 2011 when original pneumatic controls were retrofitted along with other upgrades; however, the utility usage for this school was still nearly twice the national average.

ZDS' goal for the design of HVAC, roof replacement, and lighting renovations was to reduce the overall energy usage by 50% while improving comfort and Indoor Air Quality. Many HVAC systems were analyzed and energy modeled, resulting in selecting a closed-loop geothermal HVAC system using indoor high-efficient heat pumps, eliminating the Dual Duct units, and replacing them with VAV Dedicated Outside Air Units (DOAS). Air cleaning technology was incorporated into the HVAC systems. The existing ductwork from the dual duct system was able to be reused and then VAV boxes were added with Demand Control Ventilation. Other HVAC systems included both water source heat pumps and packaged VAV Rooftop Units. The project included replacing and retrofitting the existing lighting systems with high-efficiency LED sources. The locker areas in the school were converted from heating/ventilation only to full HVAC. The project also included roof replacement concurrent with other renovations.

ZDS provided the design and assisted with the bidding and Construction Administration process. Work was designed/phased so construction could occur while the school was in use. In addition to energy savings, the systems are reducing long-term operating and maintenance costs.

High Performance Design using ASHRAE Advance Energy Design Guides saved ***64% less energy for HVAC/Lighting systems*** from the base years' usage and

Incorporates Air Cleaning Technology in HVAC System.

EUI reduction from 84 to 30.6 and Energy Star Certified!

Construction Costs: $17,400,000 completed in 2023
School Size: 189,318 square feet
Contact: Chuck Smith, Director/Support Services: (304) 348-6148

Kanawha County Schools

Ben Franklin Career Center
HVAC/Roof Renovations

The ZDS team conducted an extensive study and performed a 3D Scan-to-BIM of the facility to develop comprehensive existing conditions and assist KCS with procuring SBA funds. The work was done in two (2) phases for the replacement of the aging HVAC equipment, ductwork, and piping and included electrical upgrades to accommodate the new equipment, new lighting throughout, roof replacement, and new exterior overhead doors for the shops. ZDS provided Design, Bidding, Construction Administration, and ***Commissioning services***. Work was designed and phased so construction could occur while the school was in use.

ZDS included Faculty/Staff specific current HVAC, Electrical needs and Future IT Expansions in the Design. Included was specialized custom energy-efficient HVAC to meet the challenging comfort and Indoor Air Quality needs for the Welding, Machine, Wood, Sheetmetal, HVAC, Diesel and Heavy Equipment Shops and school. EPAct qualified energy efficient design provided excellent long-term operating savings.

Project Costs: $9,651,722 with SBA Funding $6,992,759
School Size: 78,050 square feet
Contact: Chuck Smith, Executive Director: (304) 348-6148
Charles Wilson, AIA, (Retired): (304) 533-6149

The project qualified for EPAct for energy efficient HVAC design while *using over 27.3% less energy for HVAC* and over *60% less energy for Lighting* than schools designed using ASHRAE 90.1-2007.

Piedmont Elementary School
HVAC Renovations

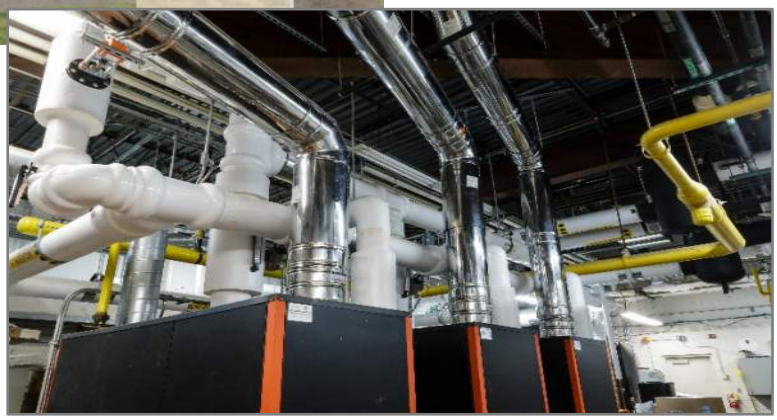
ZDS performed MEP design, 3D Scan-to-BIM, bidding and CA services for the replacement of an existing custom multizone unit, associated DDC controls and refurbished other HVAC units that had failed and were in need of constant maintenance/repairs. The work included necessary electrical modifications to serve the new rooftop unit. Project was completed within the budget allocated by the County.

The project qualified for EPAct for energy efficient design while ***using over 27% less energy for HVAC*** than schools designed using ASHRAE 90.1-2007.

Project Costs: $352,090, Project under budget!
School Size: 31,500 square feet
Contact: Chuck Smith, Executive Director: (304) 348-6148
Charles Wilson, AIA, (Retired): (304) 533-6149

Tyler County Schools

Tyler Consolidated Middle/High School
HVAC Upgrades, Auditorium Additions/Renovations



The project qualified for EPAct for energy efficient design, using ***over 35% less energy*** than schools designed using ASHRAE 90.1-2007.

ZDS provided professional engineering design, bidding, construction administration, and commissioning services for HVAC upgrades at the Tyler Consolidated Middle/High School to meet Indoor Air Quality and today's energy codes. The initial step in the project was to provide engineering investigations of existing conditions where ZDS performed 3D Scan-to-BIM for reliable and accurate 3D capture of "built" conditions to use in design, bidding, and construction. The demolition and new work to be included in **Phase I** of the project included two (2) new highly efficient chillers piped so they could be used even during winter months, three (3) new high-efficient condensing boilers, variable water volume hydronic pump system, VAV Air-Handling Units, VAV Blower Coil Units, Fan Coil Units, Energy Recovery Ventilators, DDC control upgrades, select new hydronic piping and ductwork for the equipment, exhaust fans, electric work associated with serving the new HVAC system equipment and new electrical panel-boards. **Phase II** work includes DOAS units for classrooms, air cleaning technology, and lighting upgrades to LED. Also, it includes renovations to the auditorium to performance hall standards, providing a highly efficient programmable lighting system and high-performance audio sound system, which is a showcase for the community and the best auditorium for a WV school.

Estimated Phase I Project Costs: $4,796,903, SBA funding $3,698,578
Estimated Phase II Project Costs: $11,515,000
Date Completed: Phase I was completed in 2019; Phase II completion in 2024
School Size: 188,156 square feet
Contact: Ms. Amanda Kimble, Dir. Child Nutrition, Facilities & Support Services
(304) 758-2145 ext. 111, akimble@k12.wv.us

ZDS
Design/Consulting
Services

ZDS Design/Consulting Services

Project: ***William R. Sharpe Jr. Hospital – Renovations & Additions, Weston, WV***
Client: ***WV Department of Health and Human Resources (WVDHHR)***

Client Contact: Mr. Ron Adkins
Construction Manager
WVDHHR
One Davis Square, Room 103
Charleston, WV 25301
(304) 957-0205
Ron.Adkins@wv.gov

Services: Prime for renovation work including Engineering Master Planning, energy analysis, Mechanical, Electrical, and Fire Protection design, bidding and construction administration services for retrofitting the 212,000 ft^2 Hospital. Consultant for all MEP engineering for the 32,000 ft^2 addition.

Project Description

William R. Sharpe, Jr. Hospital (the "Hospital"), originally constructed in 1993, had many HVAC, electrical and plumbing issues even though the facility wasn't that old. The two-story hospital houses 150 patients but is overcrowded. The HVAC and electrical systems experienced frequent equipment failures, power outages and many complaints on comfort. **ZDS** identified and designed the solutions. **ZDS**, as the Prime, evaluated existing MEP systems and prepared an extensive report and plan for renovating the facility while keeping the facility occupied. The initial phase involved replacing underground piping between the central plant and the Hospital. Provisions were also made for a temporary boiler and extension of piping for future renovations to the building including planning for a 32,000 ft^2 addition. This allowed for chilled water to continue to be served from the central plant while other renovations could be planned.

ZDS was selected to implement ARRA funded energy efficiency upgrades for all seven major WVDHHR hospitals including William R. Sharpe, Jr. Hospital. Energy efficient lighting was implemented using the ARRA funds and was completed on schedule in 2011 resulting in energy savings of up to 50% of the original lighting electric usage.

All three original boilers were in such poor condition that a temporary boiler had to be installed and the original boilers permanently shut down. Many of the heating coils were blocked including control valves failing, making comfort a major issue. The boilers were blocked with debris assumed to come from leaks in the underground piping where the maintenance staff was adding up to 10,000 gallons of makeup water per day to the cooling system to keep it functional.

The design includes central plant replacement with three (3) 10,500 MBH dual fuel heating hot water boilers with variable water volume pumping, three (3) 600 KW Bi-Fuel emergency generators, 15,000-gallon fuel oil storage tank, three (3) chillers – two centrifugal chillers with cooling towers and one air cooled chiller with variable water volume pumping, and a new central domestic water heating system. The design and construction made provisions to allow the Hospital to retain emergency services and HVAC while the central plant was being retrofitted.

The HVAC renovation includes comprehensive DDC controls for central monitoring and control, replacing all AHU's, and provides new VAV terminal units with hot water reheat coils. The Hospital's HVAC system is also an integral part of the smoke control system. The Hospital remained in operation while the renovations took place. Careful phasing, and the need to disrupt only small portions of the Hospital at a time, resulted in an extended construction period which was finished in 2017. All original heating hot water piping and chilled water piping were replaced. All lighting was upgraded to today's energy efficient technology including extensive use of LED lighting and lighting controls.

ZDS is a consultant for the 32,000 ft^2 addition and is providing all the MEP engineering services for design, bidding and construction administration services related to the addition. The single story addition consists of rooms to house fifty (50) forensic patients and supporting staff, a Sally Port, enclosed courtyards and connection to the existing facility. An engineered smoke control system is integrated into the HVAC system. The four pipe VAV HVAC system is served from the central plant which is being upgraded. The project was designed so the construction could be completed in combination with the renovations work occurring under a separate contract. **ZDS** was the Prime for Phase I, ARRA Funded work and for the comprehensive renovations work that is currently on-going.

"The ZDS staff are great planners and designers! They help us make the best decisions for the long term. We would recommend them to anyone!"

Greg Nicholson, former Chief Operations Officer – DHHR

Phase I HVAC Project Cost:	**$1,403,000**
ARRA Funded Lighting Upgrade Costs:	**$618,700**
Original Hospital Size:	**212,000 FT^2**
Comprehensive Renovation Project Cost:	**$30,000,000**
Addition to the Hospital Size:	**32,000 FT^2**
Addition Project Cost:	**$13,000,000**

Engineering for State & Local Government Facilities

130th Airlift Wing at Yeager Airport,
Phase I and Phase II
Aircraft Maintenance Fuel Systems
Hangars and Shops
Awarded LEED Silver Certification

Construction Costs:	**$43,000,000**
Project Size:	**128,715 ft²**

ZDS worked with the West Virginia Air National Guard on the Commissioning for their new Replacement Aircraft Maintenance Hangar and Shops plus a new Fuel Cell Hangar. This facility included a larger maintenance hangar, miscellaneous maintenance shops, central boiler plant and chiller plant. The project successfully achieved LEED Silver Certification with commissioning being an integral part of that certification.

"**ZDS*'s commissioning services were invaluable in helping us understand our facility and ensure the systems were installed as intended and optimized for long-term operating benefits. We would recommend them again!" -*** *Captain Harry Netzer, WVANG Project Manager*

ZDS

135 Corporate Center Drive, Scott Depot, WV 25560 • (304) 755-0075 • www.zdsdesign.com

WV Army National Guard
Headquarters & Annex Building

ZDS Design/Consulting Services and its principals Ted and Todd Zachwieja were involved in many mechanical, electrical, and plumbing design projects for the WV Army and Air National Guard. **ZDS** projects with the Army National Guard include providing electrical Design/Build engineering and project management for emergency power for the Army Headquarters Building and Annex Building in Charleston, WV. This project was completed ahead of schedule and within budget to provide emergency power needs for the Coonskin Army National Guard campus as part of their overall homeland security strategy. **ZDS** also evaluated and designed HVAC renovations to restore four indoor firing ranges to meet current compliance with Army Standards.

Total MEP Cost: Over $4,000,000
Contact: Lt. Co. Todd Justice, Deputy Director of Joint Operations: anthony.t.justice.mil@mail.mil

WEST VIRGINIA ARMY NATIONAL GUARD

WV Army National Guard
Dunbar Armory

ZDS provided comprehensive MEP engineering support for HVAC/partial lighting renovations at the Dunbar Armory. Our professional services included preparation of the Construction Bid Documents and continued through bidding, negotiation and construction administration of the Contract.

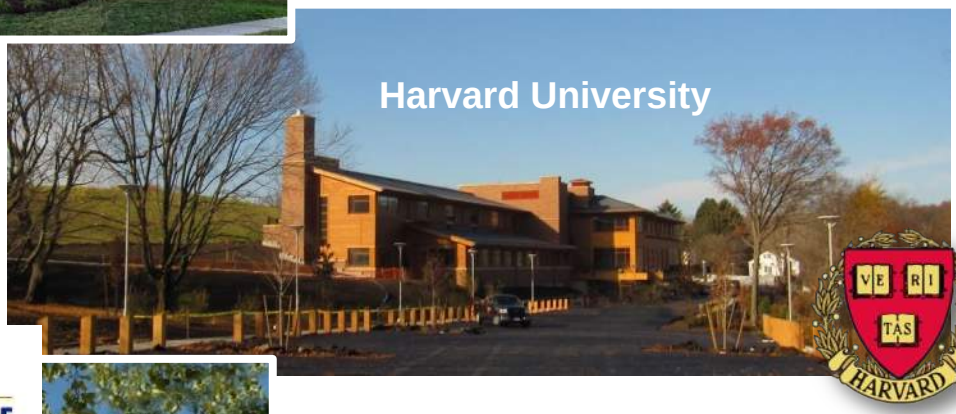
Renovations resulted in a **61% reduction** in energy for lighting and **41% reduction** in energy for HVAC renovations over ASHRAE 90.1-2007 standards qualifying the project for EPAct.

Total Project Cost: $1,000,000 (completed under budget)
Contact: SGM Kenny Goodson: kenneth.c.goodson.mil@mail.mil

ZDS
Design/Consulting Services

Engineering for Universities

UNIVERSITY OF CHARLESTON

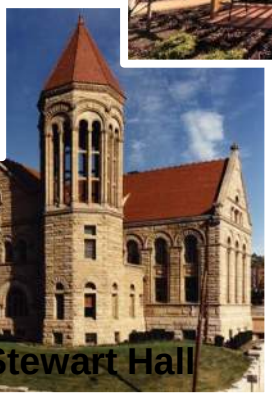


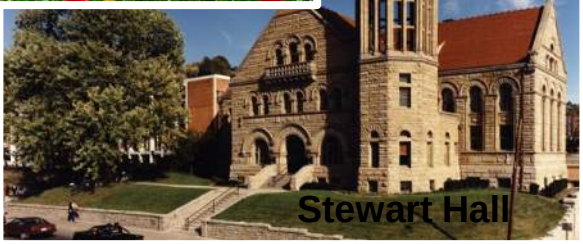
UCDAVIS
VETERINARY MEDICINE

WV University

ZDS

West Virginia University



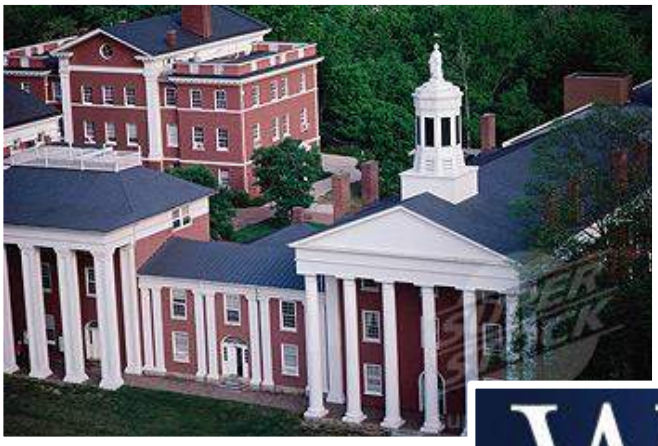


ZDS designed a system allowing **West Virginia University** to optimize its operation of the campus chilled water system. ZDS personnel has also been involved in various projects for over 20 + years!

Engineering for Universities

Shoemaker Center

ZDS initiated a performance contracting project saving **Ohio University** over $2,500,000 annually in energy costs.



The **Washington & Lee University** District Cooling project was fast tracked. ZDS designed and served as the construction manager for over 14 separate bid packages to complete the project under budget and on time.

University of Charleston

The Russell and Martha Wehrle Innovation Center

ZDS evaluated the University of Charleston's existing Eddie King Gym and adjacent Gorman Hall Mechanical and Electrical systems' infrastructure while using 3D scanning to capture "built conditions". The evaluation findings and recommendations were presented to UC prior to beginning the design phase of the proposed Project for decisions on phasing the project since the needs exceeded available funds. The Project consisted of major renovations to the Gym to meet NCAA competition requirements, interconnection/reconnection of MEP systems impacting the Gorman Hall facility, and a 30,000 SF addition to the front of the facility that is known as the Russell and Martha Wehrle Innovation Center. The facility consists of classrooms, offices, flexible meeting areas, and a large two-story Innovation Center space. Mechanical work included new chiller and boiler plants with pumps, accessories, and distribution piping as well as air handling units, DDC Controls, new domestic and fire protection water services, new gas service, domestic water heating equipment, extensive plumbing fixtures/showers/lockers. Electrical work included new electrical service from the campus 12.5 kv distribution loop, switchgear, distribution, and branch panel boards, and new energy-efficient LED lighting systems.

Construction Cost:
$17,000,000

Gary Boyd, Director of Facilities
University of Charleston (304) 357-4871

Engineering for State & Local Government Facilities

AIA West Virginia
AWARD
MERIT AWARD
FOR ACHIEVEMENT IN ARCHITECTURE

ZDS engineered the prototype for several Welcome Centers and Rest Areas.

ZDS provided engineering planning, design, bidding and construction admin services for M/E, Plumbing and Fire Protection.

ZDS also evaluated the existing courthouse's potential power needs and incorporated those in the new Judicial Annex's electrical systems while providing emergency power.

Division of Culture and History

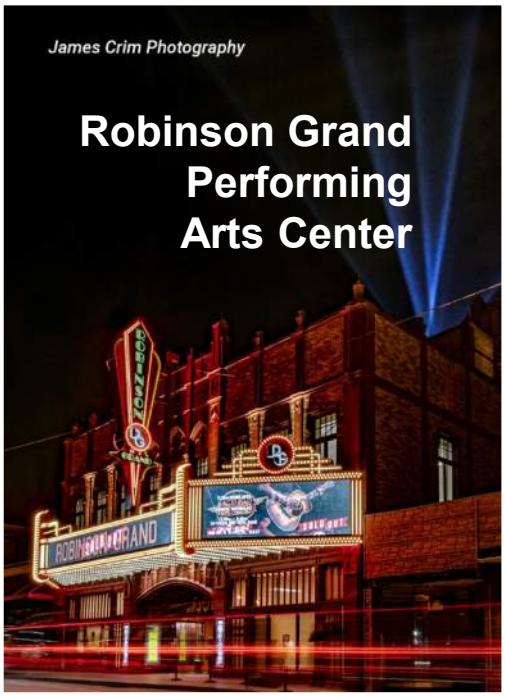
A 228,500 ft^2 Facility

Renovations save the Museum nearly $153,000 in annual energy costs while preserving the State's priceless collection with proper HVAC, humidification, lighting, electrical and power generator systems.

ZDS

135 Corporate Center Drive, Scott Depot, WV 25560 • (304) 755-0075 • www.zdsdesign.com

Engineering for State & Local Government Facilities



Resurrection through adaptive reuse provides neighborhoods and cities with future opportunities through utilizing our heritage and creating economic opportunities. The Robinson Grand Theatre has the capability to bring out the best the city of Clarksburg has to offer.

Original Building: 1913
Theatre Fire: May 1939
Rebuilt: December 1939
Closed: 2000
Bought by City: 2014
45,000 Square Feet

ZDS

135 Corporate Center Drive, Scott Depot, WV 25560 • (304) 755-0075 • www.zdsdesign.com

Engineering for State & Local Government Facilities

ZDS engineering project experience includes facilities registered as official Historic Buildings

Jackie Withrow State Hospital

WEST VIRGINIA Department of Health & Human Resources

WVDHHR hired ZDS to engineer the upgrades for three historic hospital facilities in three separate locations. ZDS successfully completed the projects while meeting the requirements of the State Historic Preservation Office (SHPO).

Hopemont State Hospital

Mildred Mitchell-Bateman State Hospital

Renovations included HVAC, fire safety, energy efficient lighting, plumbing, indoor air quality and electrical power engineering.

ZDS

135 Corporate Center Drive, Scott Depot, WV 25560 • (304) 755-0075 • www.zdsdesign.com

SECTION IV.

Proposed Team Staffing Plan

Key Personnel

Team Certifications

Team Resumes

EXPERIENCE OF KEY PERSONNEL

Principal-in-Charge

Ted (Todd) A. Zachwieja, P.E., CEM, LEED AP, ZDS founder with over 45 years of experience in MEP design, energy management, IAQ, Performance Contracting and commissioning. Nationally recognized for expertise in IAQ, LEED and Certified Energy Manager.

Chief Technical Officer
MEP Engineer/Commissioning

Ted A. Zachwieja III, P.E., CEM with over 20 years of experience and specializes in MEP design, energy management, IAQ and commissioning. Forerunner in adoption of 3D scanning for buildings for use in MEP design for renovations. Extensive experience in IT systems administration. Co-authored BIM Training for Autodesk University. Legend-in-Energy Award recipient.

MEP Project Engineer/Mgr

David Cotton, PE, LEED AP BD+C, has over 18 years of experience in the design and construction of over 500 projects. As a project manager he successfully manages projects from start to finish in design, bidding, commissioning and construction administration.

Senior Electrical Designer

Edison Adkins, is a Technology Solutions Designer with 25+ years experience in the construction industry, including 17+ years with a systems integrator.

MEP Engineer

Paul O'Dell, P.E., has 30 years of engineering experience involving the analysis, design, project management, specifications' writing and construction management on many projects. throughout the region.

MEP Engineer

Vineel Busa, PE, BCxP has a Masters in Mechanical Engineering and is working on his PhD in Project Management. He has over 8 years experience in HVAC & commissioning.

MEP Designer

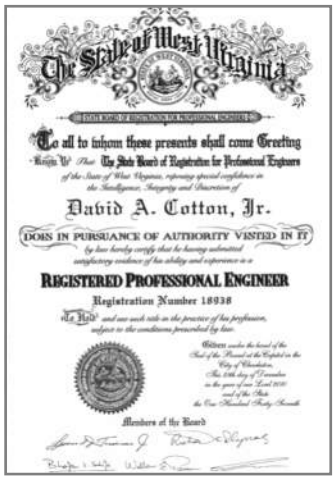
Meher Meka, BSEE, EI, with over 10 years of experience and has a Masters Degree in Electrical Engineering and is experienced in Power Distribution & Protection, lighting design, lightning protection, fire alarm, communications and schematics.

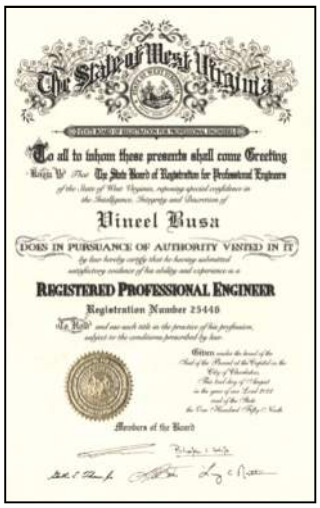
MEP Designer

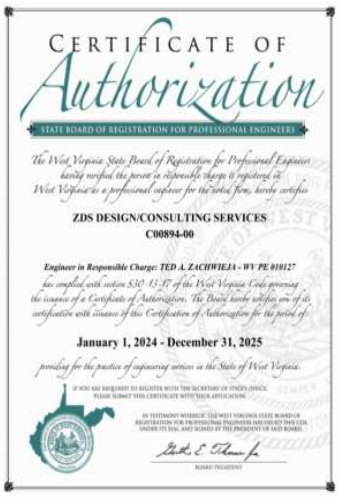
Billy Smith, with a Bachelors Degree in Mechanical Engineering, provides design, bidding, construction administration, and commissioning support for mechanical, plumbing, fire protection, and electrical systems.

Certifications

ZDS
Design/Consulting Services







Todd Zachwieja, PE, CEM, LEED AP

ZDS Design/Consulting Services

Todd has over 45 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, commercial, industrial and healthcare clients. He is also recognized as a campus master planner for utility infrastructure providing master planning for the Technology Park in South Charleston and 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, healthcare and industrial structures including high-rise building renovations. Todd designed renovations to many facilities which received ***Energy Star Certifications*** placing them in the nation's top 25% for energy efficiency. *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.

GOVERNMENT/COMMERCIAL PROJECT EXPERIENCE

- Bank One/Chase Towers
- Bayer Material Science
- Calvert County Aquatic Center, MD
- Charleston Area Medical Center
- Chief Medical Examiners Office Retrofit
- Culture Center, HVAC & Fire Protection, WV State Capitol Complex
- General Motors Corp. Re-commissioning
- Harvard University Research Laboratory
- Hopemont Hospital, WVDHHR
- Jackie Withrow Hospital, WVDHHR
- Jackson County Courthouse Annex
- Kanawha County Commission: Judicial Annex additions/renovations
- Kanawha County Courthouse
- Kanawha County Schools
- Laidley Towers
- Marshall University
- Mercer County Schools
- Mercer County Courthouse Annex
- Mildred Mitchell Bateman Hospital
- Olin Corporation
- Pocahontas County 911/EMS Center
- Public Service Commission of WV
- Raleigh County Schools
- Rhone-Poulenc
- Roane General Hospital
- Robinson Grand Performing Arts Theatre
- Santa Anna Federal Building, CA
- Tyler County Courthouse
- Tyler County 911 Center ***- Net Zero***
- Tyler County Schools
- Toyota Motor Manufacturer, WV Inc.
- UC Davis Veterinary Medicine, CA
- Union Carbide/DOW
- United Center
- University of Charleston Innovation Ctr.
- William R. Sharpe, Jr. Hospital, WVDHHR
- World Trade Center, MD
- WV Air National Guard including Cx Fuel Cell/Maintenance Hangars at Yeager Airport - ***LEED Silver Certified***
- WV Army National Guard
- WV Capitol Complex Renovations
- WVDHHR - State-wide Hospitals
- WV DOH Testing Lab
- WV Division of Natural Resources
- WV Division of Protective Services
- WV Higher Education Authority
- WV General Services Division
- WV State Capitol Complex Renovations
- WVU Health System

PROFESSIONAL REGISTRATIONS

Professional Engineer:

Florida 80814
Georgia 18253

Kentucky 17961

Maryland 47188

North Carolina 017445

Ohio 53587

Pennsylvania 040929-R

South Carolina 25985

Virginia 0402 025427

West Virginia 10127

Fire Investigation Certification under the direction of Peter Vallas, Sr.

CEM®

Certified Energy Manager (C.E.M.) National Certification No. 2205

LEED AP

LEED Accredited Professional, National Certification through USGBC No. 10083891

EDUCATION

Masters of Science in Engineering Management from West Virginia University College of Graduate Studies.

Bachelor of Science in Mechanical Engineering from West Virginia Institute of Technology.

Todd Zachwieja, PE, CEM, LEED AP

PROFESSIONAL AND COMMUNITY AFFILIATIONS

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

1st Place 2023 ASHRAE Technology Award, Region VII

Ted Zachwieja III, PE, CEM

ZDS Design/Consulting Services

Ted, a third generation engineer and Principal in the firm, has over 20 years of experience in building construction design industry that includes award winning designs including the first Net Zero 911 Center in WV and technology awards for design innovation in multiple facilities. Innovation in HVAC, Plumbing, Fire Protection, lighting design/controls, technology, engineering design, communication methods and management of the design process are the areas of his expertise. As a pioneer and a believer in technological processes, Ted has championed Integrated Design Practices and Commissioning that has become the fabric of ZDS's day-to-day operations.

Ted develops ZDS's 3D Scanning and BIM 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, healthcare, industrial, and commercial facilities. He also has experience in speaking on how 3D laser scanning impacts our industry today.

Ted is the Engineer-of-Record for design projects. As Engineer of Record he is responsible for all aspects of the project and takes a hands-on approach to the overall management, design and construction of the project. He works well with all stakeholders involved throughout the entire project lifecycle.

As Chief Technical Officer Ted develops and deploys a strategy of forward thinking and strategic development for ZDS' Integrated Design Processes, research and development into new technologies for improving quality of services for our clients.

Ted's project experience includes design and commissioning for electrical, lighting, security, IT, A/V, heating, ventilating, air conditioning, plumbing, fire protection, and acoustical systems for educational, healthcare, industrial and commercial facilities. His experience encompasses working both on new construction and renovation projects. He also is experienced in historical facilities including theatrical. He has significant experience in designing, commissioning and implementing efficient lighting and HVAC systems for various commercial, healthcare and educational facilities.

Ted maintains an active membership in the ASHRAE professional society and also has a lifetime membership in 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 served on the Electronic Communications Standing Committee with ASHRAE. He has designed renovations to existing facilities which received ***Energy Star Certifications*** placing them in the ***nation's top 25% of energy efficiency*** facilities.

PROFESSIONAL REGISTRATIONS

Professional Engineer:

Florida 81011
West Virginia 21677

Certified Energy Manager (C.E.M.)
National Certificate
No. 22411

CEM®

EDUCATION

Bachelor of Science in Mechanical Engineering from Rochester Institute of Technology, Rochester, NY

AWARDS AND RECOGNITIONS

Awarded 2012 Legend in Energy by the Association of Energy Engineers

Awarded acceptance into ASHRAE's 2015 Leadership University

ASHRAE Blue Ribbon Award of Excellence
Co-Author at Autodesk University

1st Place 2023 ASHRAE Technology Award, Region VII

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

ENERGY STAR

Ted Zachwieja III, PE, CEM

ZDS Design/Consulting Services

RELEVANT PROJECT EXPERIENCE

- WV State Capitol Complex Bldgs. 1, 3, 5, 7, 8, & 9 Renovations and #3 & #4 Cx
- Kanawha County Judicial Building Renovations and Cx - **EPAct Qualified**
- Office of Chief Medical Examiners Renovations and Commissioning
- CASCI Building Electrical Renovations, Charleston WV
- WV Air National Guard Maintenance Hangar and Fuel Cell Hangar
- University of Charleston - Virtual Dissection Lab, Innovation Center, Gorman Hall/ Eddie King Gym Renovations campus natural gas, medium voltage and water upgrades.
- Marshall University, Jomie Jazz, Harris Hall, Smith Hall Renovations
- WV Higher Education Policy Commission, S. Charleston Tech Center Master Planning
- Ben Franklin Career Center Renovations - ***EPAct Qualified***
- Glade Middle School - ***Energy Star Certified***
- Kanawha County Schools - County-Wide includes Master Planning, Renovations
- New Iaeger Elementary Schools - ***Energy Star Certified***
- Pendleton Co Middle/High School, North Fork Elem Renovations - ***EPAct Qualified***
- Pocahontas County 911/EMS Center
- Princeton Middle and High School HVAC Renovations - ***Energy Star Certified***
- Raleigh County Schools - County-Wide
- WVDHHR Master Planning, Renovations for seven healthcare facilities
- William R. Sharpe, Jr. Hospital Additions/Renovations & Cx **- *EPAct Qualified***
- Riverside High School HVAC/Lighting Renovations - ***Energy Star Certified***
- Tyler County 911 Center - ***Net Zero***
- Tyler County Courthouse Additions, Renovations and Commissioning
- Tyler Consolidated Middle/High School HVAC Renovations - ***EPAct Qualified***
- Meadowbrook, Servia, White Sulphur Springs Rest Areas for WV DOT
- World Trade Center, Renovations, MD
- West Virginia University Renovations
- WV DHHR Healthcare Facilities master planning, additions/renovations, lighting renovations - ***EPAct Qualified***

Professional Affiliations

Member of ASHRAE WV Chapter

Prior Membership Promotions Chair WV ASHRAE Chapter

Prior Chapter Secretary WV ASHRAE Chapter

Lifetime member of the Association of Energy Engineers

Associate Member WV Society for Healthcare Engineering

CEM®

OTHER RECOGNITIONS

Presented and co-authored at regional and national conferences

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

1st Place 2014 ASHRAE Technology Award, Region VII

First ASHRAE bEQ certified building in West Virginia, 2015

1st Place 2023 ASHRAE Technology Award, Region VII

ASHRAE Blue Ribbon Award of Excellence

2012 Legend in Energy by the Association of Energy Engineers

2015 ASHRAE Leadership University Recipient

David Cotton, PE, LEED AP BD +C

ZDS Design/Consulting Services

David is a professional Mechanical Engineer with over 18 years of experience in the design and construction of over 500 projects having construction values up to $35 million. His commissioning/ design experience ranges from commercial, industrial, institutional, healthcare, education, restaurant, retail, government, airport, and recreational facilities.

David collaborates well with fellow engineers, architects, owners, contractors, code officials and vendors to meet the goals and objectives. As a project manager he successfully manages projects from start to finish in design, bidding, construction administration and commissioning.

PROJECT EXPERIENCE

- Tyler County Courthouse Additions/Renovations
- Tyler County 911 Center - ***Net Zero***
- Belmont County Commission Coroner, Records & Health Dept. Facility
- Oglebay Wilson Lodge Renovations
- New Clendenin Elem Commissioning
- Mabscott Elem Renovations/Cx
- Independence Middle HVAC/Roof Renovations and Commission
- Harrison County 911/EMS Center
- Shady Spring Middle HVAC Retrofit/Cx
- Maxwell Hill Elem HVAC Renovations/Cx
- Braxton County 911/EMS Center
- Saint Marys K-8 School Renovations
- Tyler Consolidated MSHS Commissioning
- Dominion Office Building - ***LEED Gold***
- Mon General Hospital Echo Renovations
- Mon Health LTAC for Acuity
- United Hospital Ctr POB 4th Fl Retrofit
- Clarksburg Comprehensive Care Clinic Renovations
- Jerry Dove Medical Office Building
- Medbrook Building HVAC Replacement
- Pocahontas County 911/EMS Center
- Mylan Pharmaceuticals
- Beckley Police Station
- Doddridge County Athletic Complex
- Boy Scouts of America, Rex W. Tillerson Leadership Center
- White Hall Public Safety Building
- Webster County 911/EMS Center
- Beitzel/Pillar Innovations Office Building
- Percival Hall Absorption Chiller and Cooling Tower Replacement
- Tyler Consolidated MS/HS Renovations and Commissioning
- Thrasher Engineering Office Building, Bridgeport
- Upshur County 911/EMS Center
- WVU Creative Arts Center Rehearsal Hall
- WVU Towers Dining Hall Renovations
- WVU Athletic Performance Center
- HP Hood Addition/Renovations, Winchester, VA
- Dominion Office Building, Delmont, PA
- University of Pittsburgh Softball Practice Facility
- Westmoreland Community and Technical College, Indiana, PA
- WVU Alumni Center
- WVU Biomedical Research Facility
- WVU Milan Puskar Locker Room Retrofit
- NOAA GOES-R Supercomputing Center, Fairmont, WV
- WV Capitol Complex Bldg. #1, #3 & #4 Renovations and Commissioning
- Renaissance Academy Morgantown, WV
- City of Bridgeport WWTP
- City of West Union WWTP & WTP
- VA Medical Center; Audiology Task Lab Clarksburg, WV
- Mylan Park Aquatic Center

PROFESSIONAL REGISTRATIONS

Professional Engineer:

West Virginia 18938

Maryland 44405

Virginia 402055556

Ohio 77729

Pennsylvania PE078915

LEED AP BD+C Professional Accreditation

NCEES Record Certificate

USGBC Commissioning Badge

EDUCATION

Bachelor of Science

Mechanical Engineering

WV Institute of Technology

MEMBERSHIPS

WV ASHRAE, Past President

National Fire Protection Association

WV Society of Healthcare Engineers

Vineel Busa, PE, BCxP, MSME

ZDS Design/Consulting Services

Vineel is a professional Mechanical Engineer with a Masters Degree in Mechanical Engineering and over 8 years experience in HVAC, Refrigeration and Commissioning. Technically sophisticated engineering professional with solid history of effective integration, and deployment of HVAC systems. Experience in designing, commissioning and implementing award winning efficient HVAC systems for commercial, governmental, healthcare and educational facilities.

Vineel's comprehensive knowledge of many mechanical systems, building automation controls, hands on HVAC controls programs, and ability to optimize controls for energy efficiency and the Owner's needs is invaluable for Commissioning.

He is experienced hands-on in designing VAV HVAC, DOAS systems, Variable Refrigerant Flow systems, Steam Systems, central plant hydronic systems, Geothermal systems and Building Automation System receiving Energy Star Certification and ASHRAE awards. He is also proficient in Revit, AutoCAD, IESVE, Navisworks, energy modeling and Autodesk Recap. Vineel is experienced in utilizing point clouds in the development of Scan to Building Information Modeling (BIM) and performing 3D scanning. Vineel is well-versed in technical specification writings and development of construction drawings. He has hands-on experience in performing Functional Performance Testing in leading Commissioning projects.

PROJECT EXPERIENCE

- WV Capitol Complex Campus Heating System Renovations Buildings #1, #3, #4, #5 and #7 over multiple phases, & House Chamber HVAC Renovations
- WV State Capitol Complex Bldgs. #1, #3 Renovations & Bldg. #4 Commissioning
- WV Chief Medical Examiners Lodox CT Scanner Renovations, Commissioning
- WVARNG Brushfork Armory HVAC Renovations - ***EPAct Qualified***
- Kanawha County Judicial Building Renovations/Commissioning - ***EPAct Qualified***
- Roane General Hospital Commissioning
- Veteran Administration Clarksburg Hospital Mechanical BIM
- Veteran Administration Huntington Hospital Mechanical-Electrical BIM
- Marshall University—Jomie Jazz HVAC Renovations
- New Bluefield Elementary School Commissioning
- Clay County High School Commissioning - ***EPAct Qualified***
- North Fork Elementary School HVAC/Roof Renovations, 3D Scanning, Scan-to-BIM and Commissioning - ***EPAct Qualified***
- Pendleton County Middle/High School HVAC/Roof Renovations, 3D Scanning, Scan-to-BIM and Commissioning - ***EPAct Qualified***
- New Tyler 911 Center high performance ***"Net Zero"*** facility and Commissioning
- Tyler County Courthouse Additions/Renovations and Commissioning
- Riverside High School HVAC/Lighting Renovations - ***Energy Star Certified***
- New Spencer Middle School Commissioning
- New Clendenin Elementary School Commissioning
- Raleigh County Schools: 6 Schools - Renovations & Commissioning
- New Clendenin Elementary Commissioning
- St. Marys High School Renovations, Commissioning
- New Stratton Elementary School Commissioning
- New Pocahontas County 911/EMS Center
- New Coalfield Elementary School Commissioning

PROFESSIONAL REGISTRATIONS

Professional Engineer:
West Virginia 25446

ASHRAE BCxP Building Commissioning Professional

EDUCATION

VIT University
Bachelor of Science
in Mechanical Engineering

Southern Illinois University Edwardsville
Master of Science
in Mechanical Engineering

University of Cumberlands
Working on PhD in Project Management

AWARDS AND RECOGNITIONS

Certified by ASHRAE in HVAC Design Essentials & Applications

1st Place 2023 ASHRAE Technology Award, Region VII

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

Edison Adkins

ZDS Design/Consulting Services

Edison is a Technology Solutions Designer with 25+ years experience in the construction industry, including 17+ years with a systems integrator. He has a comprehensive knowledge of low voltage systems and how these systems interface with each other and with other building systems. His knowledge includes Fire Alarm, Video Surveillance, Access Control, Intrusion Detection, School Communications, Nurse Call and A/V systems. He is experienced in fire alarm system design and knowledgeable in the applicable codes for their design in WV, KY and OH.

Edison is well versed in the construction process and has performed many roles including estimating, project management, sales and system design. He has been involved in many design/build projects. His project experience includes the design and implementation of systems for educational, healthcare, correctional and commercial facilities. This experience includes both new construction and renovation projects. He is also experienced with working in historical and ornate buildings where systems must be designed to have a minimal visual impact or be implemented with little disturbance to the structure.

PROJECT EXPERIENCE

- Ohio University Ping Center
- Berea College Life Sciences Bldg.
- St. May's Medical Center, Center for Education
- Shawnee State University (multiple projects)
- Transylvania University Dormitory
- Alice Lloyd College (multiple projects)
- Buckeye Hills Career Center
- Mountwest Community and Technical College
- Carpenters Union Training Center, Grayson KY
- Hershel Woody Williams VAMC (multiple projects)
- Charleston Area Medical Center (multiple projects)
- WVU Medicine Thomas Hospital (multiple projects)
- Pikeville Medical Center (multiple projects)
- Baptist Health Lexington
- Southern Ohio Medical Center
- Village Caregiving Headquarters Bldg.
- St. Mary's Medical Center (multiple projects)
- Boone Memorial Hospital Observation Suite
- PAM Health Rehabilitation Hospital
- HECLA Water Treatment Plant
- Huntington Federal Bldg. various projects
- Keenland Association Operations Building
- Keith Albee Performing Arts Center
- Martinsburg Police Department Headquarters
- Morgantown Wastewater Treatment Plant
- Overlook Events Center Pikeville
- Sidney L Christie Federal Courthouse
- Tyler County Courthouse
- WV State Capitol Complex (multiple projects)

EDUCATION

Bachelor of Science
Electronic Engineering Technology
WV Institute of Technology

Associate in Science
Electrical Engineering Technology
WV Institute of Technology

CERTIFICATIONS

Rauland-Borg Telecenter U Campus
Technical Training & Certification

Edwards Modulaser Certification

Paul O'Dell, PE

ZDS Design/Consulting Services

Paul has 30 plus 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.

GOVERNMENT/COMMERCIAL PROJECT EXPERIENCE

- WVARNG Armory Bluefield and Dunbar
- WV Capitol Complex Central Bldg. #3 Renovations and Campus Central Boiler Plant
- 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 Assembly Plants in Lordstown OH, Janesville WI, Pontiac East MI, Bowling Green KY, Arlington TX
- Harrison County Bank
- IMC Office Bldg.
- Riverside High School Retrofit Energy Star
- Chief Medical Examiners Lodox CT Scanner Renovations
- Pocahontas County 911/EMS Center
- West Union WWTP & WTP
- Kanawha County Commission, Judicial Building Renovations
- Mercer County Courthouse
- Tyler County Courthouse Additions/ Renovations
- Tyler County 911 Center - ***NET ZERO***
- 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
- WV Capitol Complex Bldg. #3 Central Boiler Plant Additions/Renovations
- Numerous K-12 School Renovations including for Mercer, McDowell, Raleigh, Kanawha, Clay, Grant, Harrison, Marion, Pleasants, Pocahontas, Putnam, Summers, Tyler, Tucker, Upshur, Webster County Schools.
- Oglebay Wilson Lodge Renovations

PROFESSIONAL REGISTRATIONS

Professional Engineer:
West Virginia 13231

EDUCATION

Bachelor of Science in Mechanical Engineering from WV Institute of Technology, Montgomery, WV (Graduated Cum Laude)

PROFESSIONAL AFFILIATIONS

Member American Society of Mechanical Engineers

Member ASHRAE

AWARDS AND RECOGNITIONS

1st Place 2023 ASHRAE Technology Award, Region VII

ENERGY STAR

ZDS
Design/Consulting
Services

SECTION V.

References

Client Testimonial Letters

References

ZDS has worked on hundreds of projects in West Virginia including many with Governmental agencies. We encourage you to call the references listed below:

1. **Greg Nicholson,** Retired Chief Operations Officer, WV DHHR: (304) 552-010; many projects with WVDHHR as well as William R. Sharpe Jr. Hospital additions, renovations and commissioning.

2. **Ron Adkins,** Construction Manager, WV Air National Guard & WVDHHR: (304) 957-0205, or (304) 634-9379; former Project Manager for WVANG and current Construction Mgr. for many projects with WV DHHR as well as William R. Sharpe Jr. Hospital additions, renovations and commissioning.

3. **Gary Boyd,** Director of Facility Services, University of Charleston & WVU: (304) 357 -4871, garyboyd@ucwv.edu; worked on projects at both WVU and University of Charleston involving MEP systems since 1990's.

4. **Andrew Crawford,** Executive Director/Coordinator Support Services, Kanawha County Schools: (304) 395-9352, for projects with Kanawha County Schools.

5. **Mike Moles,** Maintenance Director, Kanawha County Commission: (304) 533-7888, mikemoles@kanawha.us; worked on Kanawha County Judicial Center Renovations.

6. **Patrick O' Neil,** Building Project Management Specialist, General Services Division—Engineering Section: (304) 352-5514, Patrick.S.Oneill@wv.gov; for projects at the WV Capitol Complex.

7. **Scott Casdorph, PE,** Arch & Engineering Manager, WV General Service Division Architectural and Engineering, (304) 352-5518, Scot.R.Casdorph@WV.gov.

ELSWICK & ASSOCIATES, LLC

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.

513 Havana Dr.
Charleston, WV 25311
304.542.8877

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

Gary Boyd MA CEFP

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

To Whom it May Concern

I have worked with the ZDS design team on multiple projects which include a chilled water interconnect loop, the UC Innovation Center, the UC athletic arena, and most recently, the UC Virtual Dissection Lab.

The Dissection lab project was a fast-tracked project that had many innovative components that had to be perfectly aligned to ensure the lighting was correct, the cooling for the computers mounted in the ceiling was sufficient, and headsets were accessible and properly positioned to name a few. I was extremely impressed with the speed and efficiency that ZDS provided to design and complete this project over the Summer and have this innovative space ready for our students for the 2022 Fall semester. The cooling, lighting, equipment placement and aesthetics have performed flawlessly, ZDS designed a high-quality show piece for UC in record time.

ZDS also took on the task of developing the MEP for the new athletic arena and addition of the Innovation Center and new athletic offices. This project included 3D imaging of the space prior to construction. The project also included LED lighting, a chiller and chilled water distribution with a roof mounted cooling tower and roof mounted AHUs. The Wehrle Innovation Center and Athletic Arena have served UC extremely well over the past 6 years, the arena has become the choice location for the UC graduation ceremony since completion. The plumbing, electrical, and HVAC systems have performed extremely well due to the quality of the design and specifications that ZDS provided. I highly recommend ZDS for their impressive attention to detail, skilled design team, and commitment to their projects.

Gary Boyd – University of Charleston Director of Facilities

Gary Boyd

Michael Pickens

172 Oak Street

Dunbar, WV 25064

(304) 400-9993

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

SECTION VI.

Attachments

State of WV Centralized Expression of Interest

Designated Contact Form

State of WV Purchasing Affidavit

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

State of West Virginia
Centralized Expression of Interest
Architect/Engr

Proc Folder:	1697941
Doc Description:	Camp Dawson RTI- Hot Water Repairs & Chiller Replacement
Proc Type:	Central Purchase Order
Reason for Modification:	

Date Issued	Solicitation Closes	Solicitation No	Version
2025-05-14	2025-06-03 13:30	CEOI 0603 ADJ2500000023	1

BID RECEIVING LOCATION

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

VENDOR

Vendor Customer Code: 000000208495

Vendor Name : ZDS Limited Liability Company dba ZDS Design/Consulting Services

Address : 135 Corporate Center Drive, Suite 532

Street :

City : Scott Depot

State : West Virginia **Country :** USA **Zip :** 25560

Principal Contact : Todd A. Zachwieja, Principal, CEO

Vendor Contact Phone: (304) 755-0075 **Extension:** 1001

FOR INFORMATION CONTACT THE BUYER

David H Pauline
304-558-0067
david.h.pauline@wv.gov

Vendor Signature X Todd A. Zachwieja **FEIN#** 55-0735995 **DATE** June 3, 2025

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

DESIGNATED CONTACT: Vendor appoints the individual identified in this Section as the Contract Administrator and the initial point of contact for matters relating to this Contract.

(Printed Name and Title) Todd A. Zachwieja, Principal, CEO

(Address) 135 Corporate Center Drive, Suite 532, Scott Depot, WV 25560

(Phone Number) / (Fax Number) (304) 755-0075, ext. 1001, (304) 755-0076 fax

(email address) Todd.Zachwieja@zdsdesign.com

CERTIFICATION AND SIGNATURE: By signing below, or submitting documentation through *wv*OASIS, I certify that: I have reviewed this Solicitation/Contract 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/Contract 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 this bid or offer was made without prior understanding, agreement, or connection with any entity submitting a bid or offer for the same material, supplies, equipment or services; that this bid or offer is in all respects fair and without collusion or fraud; that this Contract is accepted or entered into without any prior understanding, agreement, or connection to any other entity that could be considered a violation of law; 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.

By signing below, I further certify that I understand this Contract is subject to the provisions of West Virginia Code § 5A-3-62, which automatically voids certain contract clauses that violate State law; and that pursuant to W. Va. Code 5A-3-63, the entity entering into this contract is prohibited from engaging in a boycott against Israel.

ZDS Limited Liability Company dba ZDS Design/Consulting Services

(Company)

Todd A. Zachwieja

(Signature of Authorized Representative)

Todd A. Zachwieja, Principal, CEO

(Printed Name and Title of Authorized Representative) (Date)

(304) 755- 0075, ext. 1001, (304) 755-0076

(Phone Number) (Fax Number)

todd.zachwieja@zdsdesign.com

(Email Address)

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: ZDS Limited Liability Company dba ZDS Design/Consulting Services

Authorized Signature: _____ Date: May 29, 2025

State of West Virginia

County of Putnam, to-wit:

Taken, subscribed, and sworn to before me this 29 day of May, 2025.

My Commission expires January 26, 2029.

AFFIX SEAL HERE

OFFICIAL SEAL
NOTARY PUBLIC
STATE OF WEST VIRGINIA
Lori Zachwieja
135 Corporate Center Dr., Suite 532
Scott Depot WV 25560
My Commission Expires January 26, 2029

NOTARY PUBLIC _____