

Anthony Correctional Center Water Issue Corrections

West Virginia Division of Corrections
Department of Administration
Purchasing Division
Charleston, West Virginia



Proposal for Professional Architectural/Engineering Services

RFQ# COR61515

May 17, 2012





May 17, 2012

Ms. Tara Lyle
Department of Administration
Purchasing Division
Building 15
2019 Washington Street, East
Charleston, West Virginia 25305-0130

**Re: Anthony Correctional Center
RFQ COR61515**

Dear Ms. Lyle:

Chapman Technical Group is most interested in providing architectural and engineering services to West Virginia Division of Corrections to correct the water issues at the Anthony Correctional Center. One of our architects, Mr. Phill Warnock, AIA, attended the pre-submittal conference and has a very good understanding of the requirements and goals.

The issues at the Anthony Center are complex and require an understanding of building envelope and insulation techniques, as well as building ventilation and indoor air quality requirements. It is also important that these factors be considered together as part of a comprehensive solution. While we routinely work with a number of mechanical consultants, for this project we would team with ZDS Design/Consulting Services. ZDS President, Todd Zachwieja, is a noted expert in air quality design.

Chapman Technical Group has considerable experience in building renovations and our Architectural Manager, Dale Withrow, has almost 40 years experience and is an invaluable resource in coming up with practical solutions to complex problems. We have completed numerous new and renovation projects throughout West Virginia ranging from the new Rest Areas for the Division of Highways, courthouse renovations for the Upshur County Commission, and school renovation projects. We are currently involved in the renovation of a 40,000 square-foot historic building for the Division of Highways in Charleston and have been involved in several Department of Corrections projects, including the original design for the Mt. Olive Correctional Center.

200 Sixth Avenue
St. Albans, WV 25177

304.727.5501
FAX 304.727.5580

Buckhannon, WV
Martinsburg, WV

www.chaptech.com

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WV PURCHASING
DIVISION



Ms. Tara Lyle
May 17, 2012
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Our team of architects, working in conjunction with ZDS, can analyze the water issues affecting the Anthony Center and develop a cost-effective plan of action. If short-listed for the project, we will be happy to share our project approach during our firm interview. Meanwhile, if you have any questions or need additional information, please contact me.

Sincerely,

CHAPMAN TECHNICAL GROUP

Joseph E. Bird, ASLA
Vice President



Chapman
Technical
Group

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Overview

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References

Company Overview



Chapman Technical Group's St. Albans Office

Chapman Technical Group is a full-service consulting firm with offices in St. Albans, Buckhannon, and Martinsburg, West Virginia offering an extensive range of professional architectural, engineering, interior design and landscape architectural services. Established in 1984, Chapman Technical Group has steadily grown to a diverse firm of professionals, many of whom were educated in West Virginia colleges and universities. We have achieved an outstanding reputation for providing high-quality design projects, while meeting client schedules and budgets and have received numerous awards for our work.

Our facilities are both state-of-the-art and architecturally significant. Our St. Albans office is a former post office and is now on the National Register of Historic Places.

Chapman Technical Group offers a broad range of professional services.

- Airport Design
- Architecture
- Civil Engineering
- Fire Pumping & Protection
- Interior Design
- Landscape Architecture
- Recreational Facilities
- Roads, Highways, & Bridges
- Site Development
- Space Planning
- Surveying
- Water & Wastewater Systems

Awards



WINNER - "COMMISSIONER'S ENGINEERING ACHIEVEMENT AWARD", WVDOT - DIVISION OF HIGHWAYS - 2011: Large Roadway Category for WV10 North Davy Branch to Rum Creek; 2000: Large Bridge Category for WV10 Buffalo Creek Bridge, Logan County, West Virginia.

AMERICAN INSTITUTE OF ARCHITECTS - MERIT AWARD FOR EXCELLENCE IN ARCHITECTURE, 2009 - Interstate 79 Rest Areas.

AMERICAN SOCIETY OF CIVIL ENGINEERS - NATIONAL - SUPERIOR EMPLOYER AWARD, 2009, Support of Young Professionals in the Private Sector.

AMERICAN COUNCIL OF ENGINEERING COMPANIES-WV - ENGINEERING EXCELLENCE AWARD, 2009, Gold Award - Special Projects Category for the Mercer County Airport Runway Safety Area Project.

AMERICAN INSTITUTE OF ARCHITECTS - HONOR AWARD FOR EXCELLENCE IN ARCHITECTURE, 2008 - Upshur County Courthouse Restoration and Renovations.

AMERICAN COUNCIL OF ENGINEERING COMPANIES-WV - ENGINEERING EXCELLENCE AWARD, 2008, Bronze Award - Wastewater Category for the Spring Run State Fish Hatchery Improvements.

AMERICAN COUNCIL OF ENGINEERING COMPANIES-WV - ENGINEERING EXCELLENCE AWARD, 2007, Silver Award - Structures Category for the Mercer County Airport Runway Safety Area Project.

GARY KING COMMUNITY SERVICE AWARD, 2006. **GOOD SCOUT RECIPIENT**, 2005.

AMERICAN COUNCIL OF ENGINEERING COMPANIES-WV - ENGINEERING EXCELLENCE AWARD, 2003, Gold Award - Water Treatment Category for the City of Fairmont Water Treatment Plant Project.

AMERICAN COUNCIL OF ENGINEERING COMPANIES-WV - ENGINEERING EXCELLENCE AWARD, 2002, Gold Award - Transportation Category for the Raleigh County Memorial Airport Runway Rehabilitation Project.

FINALIST - "COMMISSIONER'S ENGINEERING ACHIEVEMENT AWARD", WVDOT - DIVISION OF HIGHWAYS - 1999: Large Roadway Category for WV10 Buffalo Creek - Taplin Project; 2000: WV10 Buffalo Creek - Huff Junction Project, both in Logan County, West

AMERICAN COUNCIL OF ENGINEERING COMPANIES-WV - ENGINEERING EXCELLENCE AWARD, 1999, Silver Award - Water and Wastewater Category, for the City of Beckley Piney Creek Wastewater Treatment Plant Project.

ENTREPRENEUR OF THE YEAR AWARD - FINALIST, 1999 and 2000, Sharon L. Chapman, President, was named one of twenty finalists in the West Virginia Area Entrepreneur of the Year Award. Sharon was recognized for leading Chapman Technical Group to become one of the most highly regarded engineering firms in the state after the death of her husband and company founder, Harvey R. Chapman.

"EXPECT THE BEST FROM WEST VIRGINIA AWARD", 1998, Charleston Regional Chamber of Commerce. The Expect the Best program was created to recognize West Virginia businesses and organizations that promote quality of life at home, work, and in the community so that individuals and organizations will implement quality principles and practices leading to unprecedented pride and economic growth in West Virginia.

HONOR AWARD, West Virginia Chapter of the American Society of Landscape Architects, 1994, Shrewsbury Street Area Redevelopment Plan, for excellence in planning and design projects. Joseph E. Bird, ASLA, Project Manager.

"GOVERNOR'S AWARD FOR ENGINEERING EXCELLENCE", 1990, The West Virginia Chapter of the American Public Works Association, in recognition of outstanding Public Works Engineering and Design of Projects within West Virginia.

DUNDEE CEMENT COMPANY ANNUAL DESIGN AWARD, 1988, Yeager Airport Taxiway Overlay Project. Harvey R. Chapman, P.E., Project Manager.

AUSTIN C. PALMER "OUTSTANDING FACILITY DESIGN AWARD", 1988, City of Bridgeport Swimming Pool Complex. Harvey R. Chapman, P.E., Project Manager.

"GEORGE WARREN FULLER AWARD", Harvey R. Chapman, P.E., 1984, Robert G. Belcher, P.E., 2001, and Sharon L. Chapman, 2005, Jeffery D. Ekstrom, P.E., 2010, American Water Works Association, for distinguished service in the water supply field in the State of West Virginia.



ZDS OFFERS AN EFFECTIVE ORGANIZATIONAL STRUCTURE; ONE THAT TAKES EACH PROJECT FROM INCEPTION THROUGH COMPLETION, WORKING AS AN EXTENSION OF THE CLIENT EVERY STEP OF THE WAY.

EXCELLENT MECHANICAL AND ELECTRICAL DESIGN RESULTS FROM AN EXPERIENCED TEAM, AS WELL AS LISTENING TO THE NEEDS OF THE CLIENT. ABOUT ZDS DESIGN/CONSULTING SERVICES

ORGANIZATION

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. Today **ZDS** has four principals with over 100 years of technical expertise:

Todd A. Zachwieja, PE, C.E.M., LEED AP, Chief Executive Officer, brings with him over 30 years in the design and consulting business.

Ted T. Zachwieja, Principal over Construction Administration services, has over 50 years experience in the design and consulting business. He was owner of Ted T. Zachwieja & Company from 1962 to 1982.

Daniel H. Kim, Ph.D., Manager of Strategic Planning brings with him over 25 years in the design and consulting business and is one of the nation's leading experts in organizational management. He is also owner/founder of Pegasus Communications, Inc. from 1991 to present.

Lori Zachwieja, CPA, MFA Chief Financial Officer, was cofounder of ZECO Consultants.

SERVICES

**MECHANICAL
INDOOR AIR QUALITY
ENERGY**

**ELECTRICAL
COMMISSIONING**

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. Our design expertise includes:

MECHANICAL DESIGN

Heating & Ventilation
Air Conditioning
Piping
Environmental Controls
Process Controls
Refrigeration
Plumbing
Medical Gases
Sprinkler-Fire Protection
Master Planning

ELECTRICAL DESIGN

Power Distribution
Interior Lighting
Exterior Lighting
Emergency Power
Communications
Technology
Fire Alarm
Security
Life Safety
Master Planning

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, the budget supervisor, the 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."

COMPANY LEGAL NAME

ZDS Design/Consulting Services

LOCATION OF INCORPORATION

West Virginia

PRINCIPAL OFFICERS

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

Ted T. Zachwieja, Principal

Daniel H. Kim, PhD

Lori Zachwieja, CPA

OFFICES

St. Albans, WV

Morgantown, WV

Johnstown, PA

Cincinnati, OH

NUMBER OF EMPLOYEES

ZDS currently employs 14 design professionals.



INDOOR AIR QUALITY SERVICES

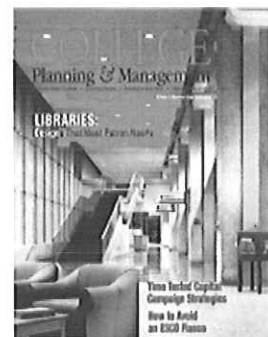
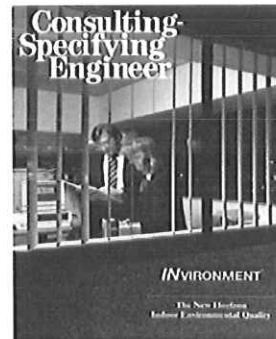
ZDS provides consulting engineering services for the indoor air quality (IAQ) environment. These services include: strategic planning for renovation and new construction projects; technical research and writing; specialized applications software development; corporate and professional training programs;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

Todd Zachwieja, ZDS principal, is contributing editor for the following IAQ publications:

- Contributing Editor and 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.
- The New Horizon: Indoor Environmental Quality, published as a supplement to the June 1993 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 IAQ services for major corporations, government organizations and property owners to resolve their specific facility problems:
- Resolve the building's "sick building syndrome" complaints.
- Identify solutions to extensive biological contamination building related illnesses in renovated office buildings.
- Develop solutions for HVAC systems, temperature controls, equipment, operating and maintenance practices causing IAQ problems in schools and commercial buildings.
- Commission new and renovated facilities to minimize or eliminate IAQ issues before they become problems.
- 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, ZDS produces sophisticated technical expertise that enables our Client to be proactive in solving and preventing indoor environmental problems.



SUMMARY

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 that includes:

- 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.
- Evaluating and documenting utility savings.

Todd Zachwieja received AEE's **LEGENDS IN ENERGY AWARD** in 2007 and 2008 for lifetime achievements in energy. 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.

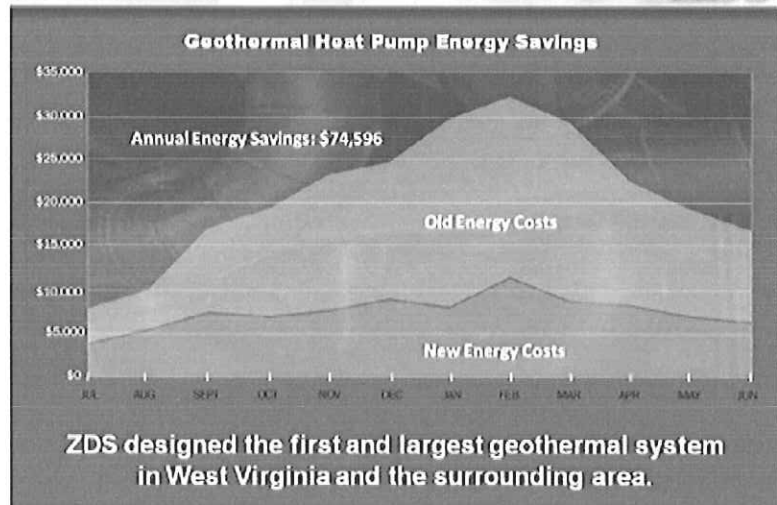
Recent projects include:

- Interconnecting boilers and chiller plant systems.
- Designing Geothermal HVAC systems.
- Optimizing HVAC equipment and operating sequences.
- Installing Direct Digital Control (DDC) Energy Management Systems.
- Replacing inefficient lighting equipment with energy efficient systems to variable speed operation.
- 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 economizer cycle operation.
- Testing steam traps and pressure relief equipment operation.
- Enabling heating and cooling equipment only when required.

Webster County Schools





The **ZDS** team is trained and experienced in advising you of program options to incorporate energy efficiency and operational savings features into the design of your new construction and renovation projects. At **ZDS**, we view our role as helping you to define your own energy efficiency needs and goals through identifying energy savings options and providing supporting financial information. We then help you fit your energy efficiency needs and goals into a workable budget and schedule, and then design a program to fill those needs.

Sustainable "Green Building" design, including LEED's certification, recognizes the importance of commissioning. The design and construction industry have had start-up problems when a facility is occupied and construction deficiencies were not discovered until the contractor's traditional one-year warranty period expired. The mechanical and electrical systems have continued to become more complex with sophisticated control systems and equipment, and a mountainous amount of changing technology. If not properly addressed, building owners could face numerous operational problems from "Sick Building Syndrome," excessive energy costs, and uncomfortable indoor environments. Commissioning is the missing link between design and implementation.

Subsequent to joining **ZDS**, Todd Zachwieja established commissioning services for one of the nation's largest energy service companies. He is also a LEED's Accredited Professional. Many utility companies and building owners now require commissioning for the new or renovated facilities in order to maximize the use of their investments in their facilities and to obtain LEED's certification. The

commissioning process offers the following benefits:

- Improved comfort, serviceability and Owner understanding of systems and design intent.
- Added technical support for the Owner and being proactive in preventing new problems.
- Reduced maintenance and decreased expenses related to operating deficiencies.
- Early identification and resolution of system discrepancies while designers and contractors are still under contract and on the job.
- Verification of system performance while meeting financial restraints.
- Commission new and renovated facilities to minimize or eliminate IAQ issues before they become problems.

ZDS and its consultants offer commissioning services for their commercial and institutional clients; including meeting LEED's enhanced commissioning requirements. These services include strategic planning operations assistance for renovation and new construction projects. Commissioning services consist of construction document review, equipment performance testing, documentation of design criteria, value engineering, operational fine tuning, professional operations training programs and site-specific engineering consultation. Our project team has the unique experience of in-depth design knowledge and hands-on operations knowledge that fills in the gap between traditional design services and the building Owner's operational needs.

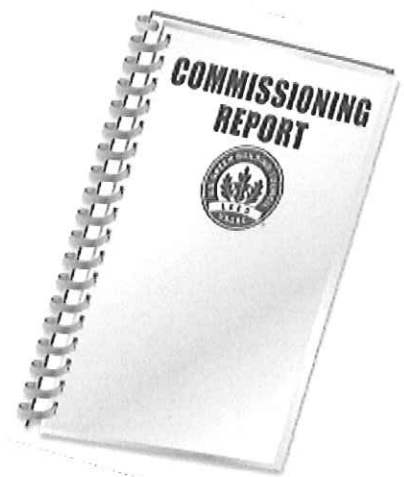
NATIONAL RECOGNITION

The National Conference on Building Commissioning invited Todd Zachwieja, **ZDS'** owner, to speak. He jointly presented a paper with the Director of Maintenance of Charleston Area Medical Center's Memorial Division. The Tampa, Florida Conference involved experts nationwide.

The principal owners of **ZDS** and their consultants have extensive experience in building commissioning and have saved their customers hundreds of thousands of dollars in construction costs and operating costs through their efforts.

The design team at **ZDS** is the best to provide engineering services for your project. Satisfying our client's individual needs and distinct requirements is the foremost concern of **ZDS**.

The most important member of the design team is the client. We make every effort to involve our clients throughout the entire process, from the planning through the construction and beyond.



The **ZDS** design staff continuously provides engineering design services value well into the millions of dollars on a variety of project types. Designing expertise goes as far back as 1958.

Through the efforts of our staff, project locations include:

West Virginia	Michigan
California	New York
Colorado	North Carolina
Connecticut	Ohio
Florida	Pennsylvania
Georgia	South Carolina
Hawaii	Tennessee
Illinois	Texas
Indiana	Virginia
Kentucky	Washington, DC
Maryland	Wisconsin
Massachusetts	

ZDS clients can rest assured that the design team will be available, not just for the year or two that we are involved in the initial design and construction, but also for years that follow as questions arise about your facility. A good engineered system and its equipment should last 15 to 40 years. Why not select a design firm with experienced staff committed to their projects with a comparable track record.

The **ZDS** design team will provide comprehensive services utilizing experienced staff through planning; cost estimating, engineering, coordination of bidding, regular site visitation during construction and specifications for equipment. You, our client, will greatly benefit from a single point of responsibility for every need your project may have.

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 and the West Virginia Department of Health and Human Resources.

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.



CLIENTS

WV Division Health & Human Resources

WV Dept. of Education

WV General Service Administration

WV Division of Protective Services

WV Air National Guard

WV Army National Guard

WV Higher Education Policy Commission

Veterans Administration

WV Dept. of Transportation

Kanawha County Commission

Kanawha County Schools

Charleston Area Medical Center

West Virginia University

Ohio University

General Motors

Harvard University

Raleigh County Schools

Greenbrier County Schools

Pocahontas County Schools

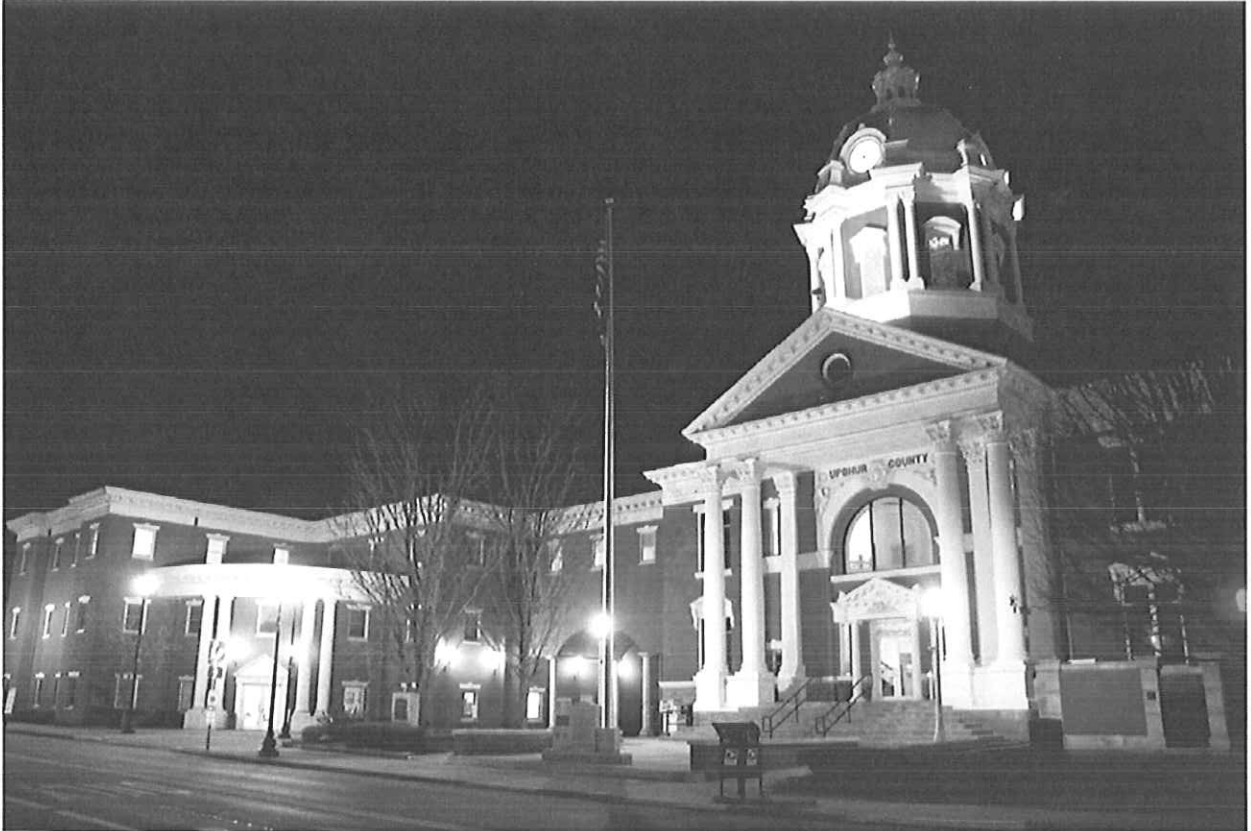
Webster County Schools

Webster County Development Authority



Upshur County Courthouse Renovations

04013



Upshur County Courthouse Complex

AIA Honor Award 2008

Upshur County Commission

38 West Main Street
Buckhannon, West Virginia 26201

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



Dome Restoration Detail



Burnsville Rest Areas

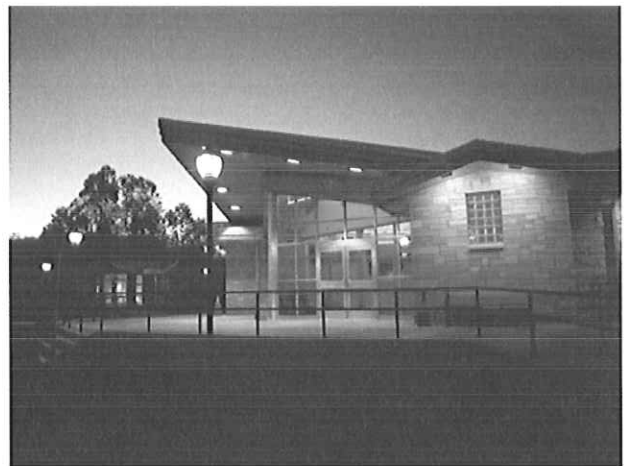
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Burnsville Rest Areas

I-79, Mile Marker 86
West Virginia

The Burnsville Rest Areas are the first of the Standard Rest Areas to be built for the State of West Virginia. With dual sided men's and women's facilities, the structures are intended to meet the anticipated traffic load for twenty years from the date of design. They utilize materials native to the state, including smooth cut and rough stone, and a tern coated stainless steel roof system. A warm, but high-tech, Appalachian imagery greets the weary traveler, encouraging a more safe and rested trip. Low maintenance, but highly durable materials were used, including stone, stainless steel, glass, aluminum, wood, polished ground faced CMU, and epoxy terrazzo. Separate maintenance and vending buildings complement the main structures on the Northbound and Southbound sides.





Beckley Water Company Office Renovations

95008



Before Renovations



After Renovations

Beckley Water Company

Post Office Drawer U
Beckley, West Virginia 25801

Design and construction observation services for renovations to the existing Water Company offices and an expansion of those offices into an adjacent building. The interior spaces were restored to the original 1930's configuration with high ceilings and an open mezzanine. An original pressed tin ceiling which was badly damaged during previous renovations was replaced with a new ceiling of the same style. Facade renovations included traditional store-

front design elements along with the introduction of stained glass transoms windows. The lobby area included the introduction of a new open office system. Mechanical and electrical systems for the entire building were replaced along with the installation of new sprinkler and fire alarm systems. The renovations were phased so that all operations of the Water Company were maintained during the construction process.



Beckley Water Treatment Plant

93082



Beckley Water Company

Post Office Drawer U
Beckley, West Virginia 25801

Design and construction observation services for a new 3,500 gallon-per-minute (5 MGD) water treatment plant expandable to 7,000 gallon-per-minute (10 MGD) without major expansions. The plant obtains source water from the extensive abandoned deep mines underlying the Beckley area. The plant was designed around an existing dewatering shaft located on the site which is over 280 feet deep and has a static water depth of 52 feet. The process design includes an innovative vortex aeration system at the plant headworks to oxidize the high iron levels to allow precipitation. The application of this aeration equipment is the first known application of this technology in a

potable water treatment facility in the nation. The process follows with tapered flocculation, inclined-plate high-rate lamella sedimentation units, and mixed media filtration. The raw water pump and high service pump for this facility are 350 HP and 700 HP respectively. Discharge pressure from the plant is in excess of 280 psi due to the plant's location. Included in this project was a complete hydraulic analysis of the entire water system to ensure the recommended improvements will eliminate the most serious flow and pressure problems within the existing system. Project included all structural, mechanical, and electrical engineering.



Belington Multi-Tenant Business Incubator

05011

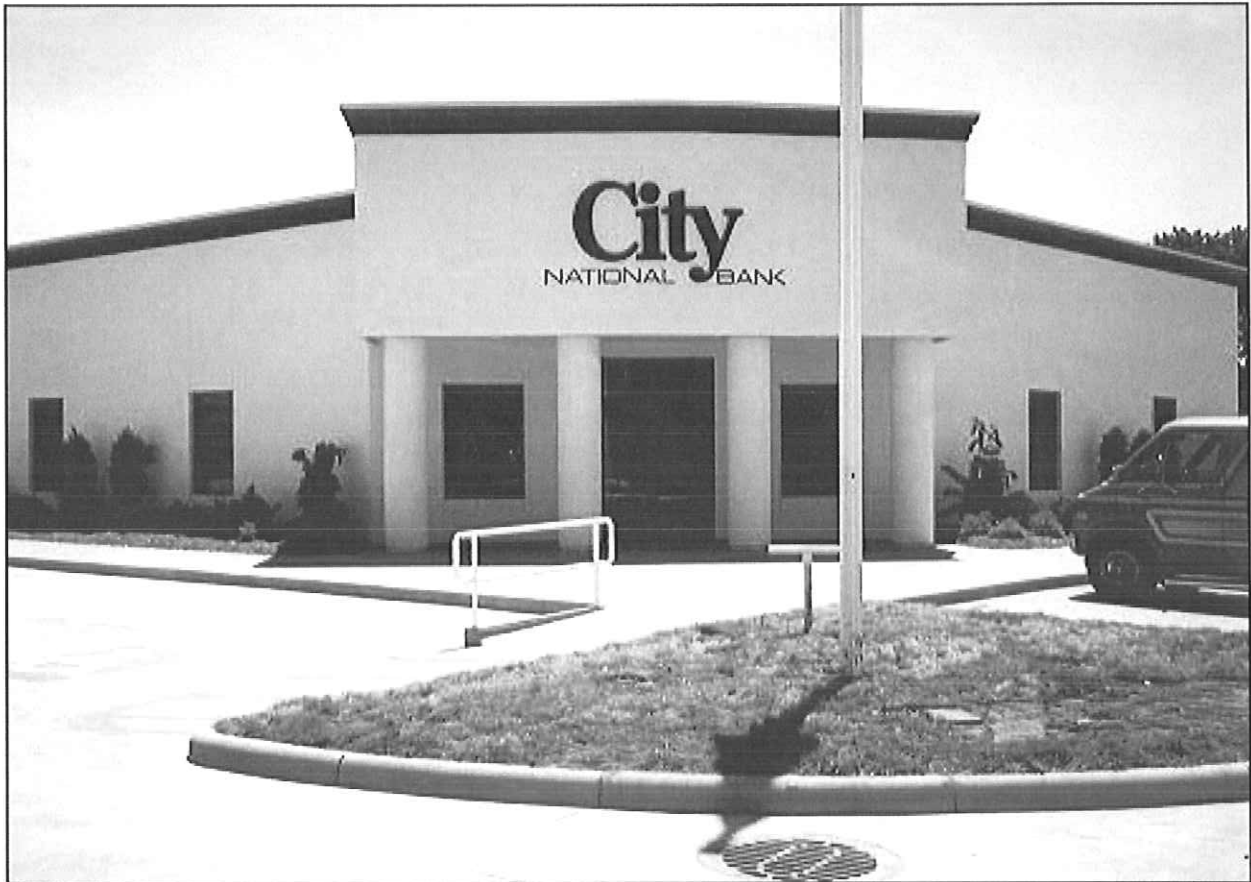


Barbour County Economic Development Authority

Belington Industrial Park
Belington, West Virginia

Chapman Technical Group assisted the Barbour County Economic Development Authority by providing design services and construction administration for the Belington Multi-Tenant Building located in the Belington Industrial Park. The Multi-Tenant Building is a 25,100 s.f. metal building which consists of three 8,300 s.f. tenant spaces, each with their own office core and bay spaces. The office cores create pedestrian entry and provide a reception area, offices, restrooms, and break area for each tenant. The bays provide 7,400 s.f. of open work area with covered vehicular access to the bays.





City National Bank

100 Poplar Fork Road
Scott Depot, West Virginia 25560

A new 3,000 square-foot branch bank for City National Bank is located in Teays Valley, West Virginia. The design services involved all disciplines of construction including site development, utility planning and landscaping. Interior Design included space planning and finishes, as well as furniture, layout, selection, purchase and installation.

Chapman Technical Group has provided services for Renovations and Interior Design at other City National Bank locations including a 2,700 square-foot building in Marmet, West Virginia and an 8,000 square-foot Operations Center in Cross Lanes, West Virginia.



Chapman Technical Group Office

93037



Chapman Technical Group

Post Office Box 1355
St. Albans, West Virginia 25177

Complete design of the renovation of an existing 7,000 square-foot building and an 8,000 square-foot addition. The former building served as the St. Albans Post Office and is on the National Register of Historic Places. The new building now serves as the Engineering/Architectural Offices of Chapman Technical Group. In addition to its beauty, the building is a very functional E/A office facility. The electrical and communications conduits were upgraded to allow for a fully integrated computer local area network.

The building has 16 computer aided design workstations that were tailored to meet the needs of our employees. In keeping with our desire to have healthy productive people, a fitness facility was added in the basement of the new wing. The facility also includes two conference rooms, offices, reproduction room, dark room, art room, and file room. Chapman Technical Group provided all structural, mechanical and electrical work.



Mason County Fish Hatchery

00010



Above: The Mason County Fish Hatchery building houses fish rearing facilities as part of WVDNR's hatchery operations at the Robert C. Byrd Locks and Dam. Right: Piping manifolds will distribute both well water and reservoir water to a variety of fish tanks.

West Virginia Division of Natural Resources

Capitol Complex, Building 3, Room 669
1900 Kanawha Boulevard, East
Charleston, West Virginia 25305



Located at the Robert C. Byrd Locks and Dam at Apple Grove, West Virginia, the Mason County fish hatchery building is the final component to the hatchery complex that also includes a series of fish rearing ponds and a reservoir to supply the ponds. The project also included the design and construction of two residences to be used by hatchery personnel.

The 9,200 square-foot fish hatchery building is a masonry and steel structure housing the actual hatching components, as well as offices and other support facilities. More than half of the building is open space to accommodate the fish hatching egg rack and a variety of rearing tanks that hold the fish until they are mature enough to be transferred

to ponds. The tanks are fed from either reservoir water or directly from well water which first passes through a degassing head tank. As water flows continuously through the tanks from an overhead distribution system, it is collected in a series of trench drains in the hatchery floor and eventually makes its way back to the Ohio River.

The hatchery also includes an office, a bunk room and kitchen for seasonal employees, a brine/shrimp room, and storage and maintenance garages. A mezzanine above the office area provides for additional storage.



Logan County Board of Education

506 Holley Avenue
Logan, West Virginia 25601

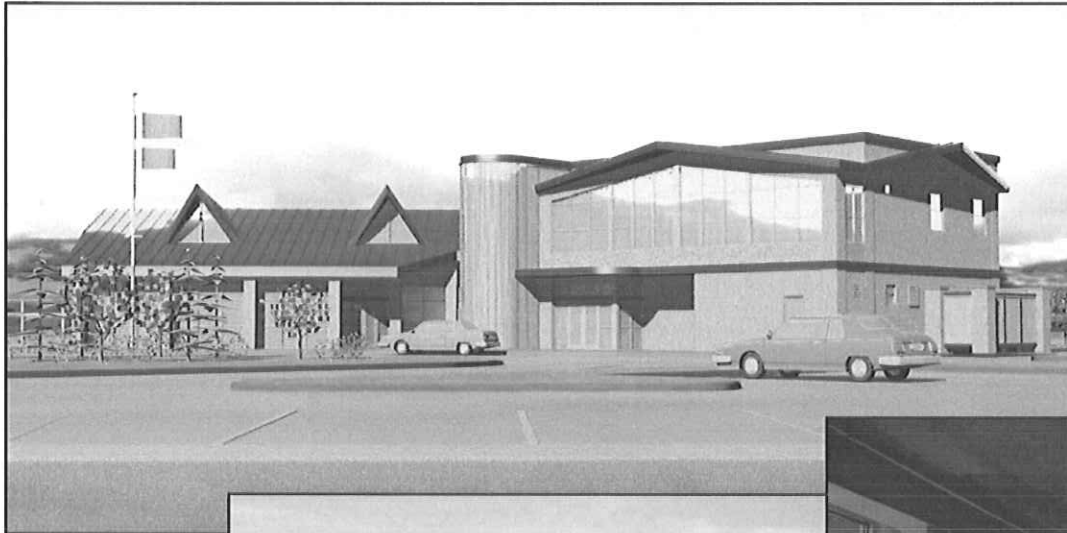
The Man K-8 Addition included the design and space planning for a 9,360 square-foot addition to the existing school. The addition included four new classrooms, a 2,400 square-foot gymnasium/multipurpose room, ADA compliant restroom facilities, and a small landscaped courtyard. The project included all structural, mechanical, and electrical engineering. The design and construction was accomplished in 10 months and nearly 15% below budget.





Mercer County Airport Terminal Renovation

02026



Mercer County Airport Authority

Route 5, Box 202
Bluefield, West Virginia 24701

In 2003, the Mercer County Airport Authority initiated a renovation project for its 50 year-old terminal building. This 11,000 square-foot project will incorporate a phased renovation/addition process, allowing continuous occupation and operation of airline, car rental, Transportation Security Administration (TSA), and airport management facilities. The first two phase included a new EPDM roof for the upper area and a new standing seam metal roof, roof structure and a new facade for the lower area. Subsequent phases will provide stair and elevator silo additions,

glass fronted second story access ways, new HVAC and electrical services, and relocated/upgraded restroom facilities to provide improved passenger circulation. Issues of security, passenger flow and accessibility are addressed in this design while providing these functional improvements and providing a "lighter" aesthetic which is more in line with the function of the Air Terminal. The project will be completed in phases, providing \$2 million of upgrades as funds are released from the FAA.



Roark Sullivan Lifeway Center Veterans' Transitional Living Center and Service Center

05036



Roark Sullivan Lifeway Center
507 Leon Sullivan Way
Charleston, West Virginia

This 3,400 s.f. facility houses the Veterans Program and provides accommodations for 12 men in single room occupancies, geared to support veterans who are experiencing homelessness. The program provides housing and case management support, assisting men in the program to work toward self-sufficiency and community living. The design of the building supports that goal in providing modest bedrooms in favor of more spacious communal areas, thus providing the men with a space of their own while encouraging interaction with the other men in the program. A communal kitchen, laundry room, dining area, and two living and entertainment areas support the idea of interaction and self-sufficiency.





Ritchie County Schools

134 South Penn Avenue
Harrisville, WV 26362

The Smithville Elementary School project included the demolition of two buildings in the existing four building complex and the design of a new classroom wing and a new kitchen addition adjacent to the remaining buildings. The new additions were designed to join with the existing classroom wing and multipurpose building to create a single facility under one roof.

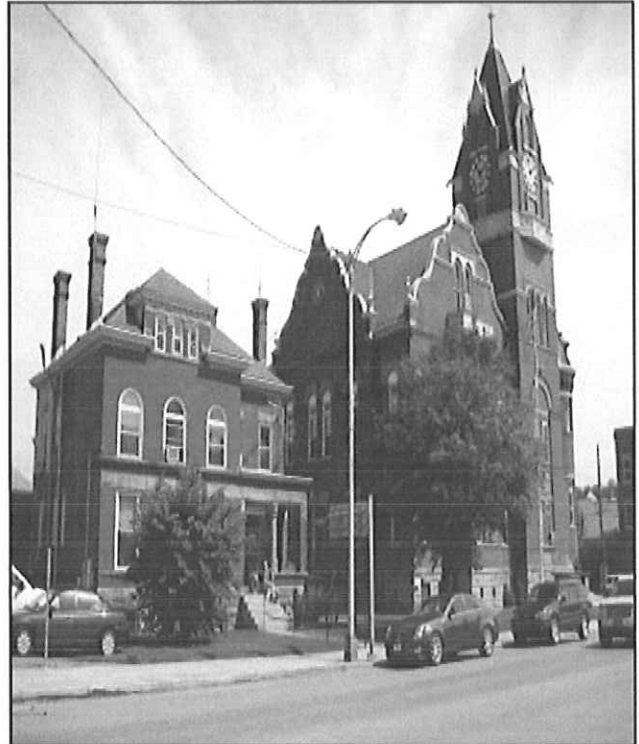
The new school will provide access control and better security, new HVAC systems and better indoor air quality, compliance with ADA/ABA requirements and modern technology and amenities.





Tucker County Courthouse & Jailer's Residence - Restoration

10032



Chapman Technical Group and their consultants, CAS Structural Engineering, Inc., and ZDS Design Consulting Services were hired by the Tucker County Commission to provide a conditions report for the stabilization and restoration of the Tucker County Courthouse and Jailer's Residence. After evaluating and assessing the condition of the existing structure; Chapman Technical Group submitted a detailed plan for the stabilization of the structure, and recommendations on how to restore and renovate the structure for future use. A prioritized budget was compiled identifying the most critical and immediate repairs, repairs and refurbishing that should be scheduled as soon as funds became available, and restoration, upgrades, and ongoing maintenance that could be delayed to future dates. Phase 1 of this plan was affected 2011 to refurbish, repoint, and stabilize the chimneys of the Courthouse and the Jailer's Residence (Commission Offices).

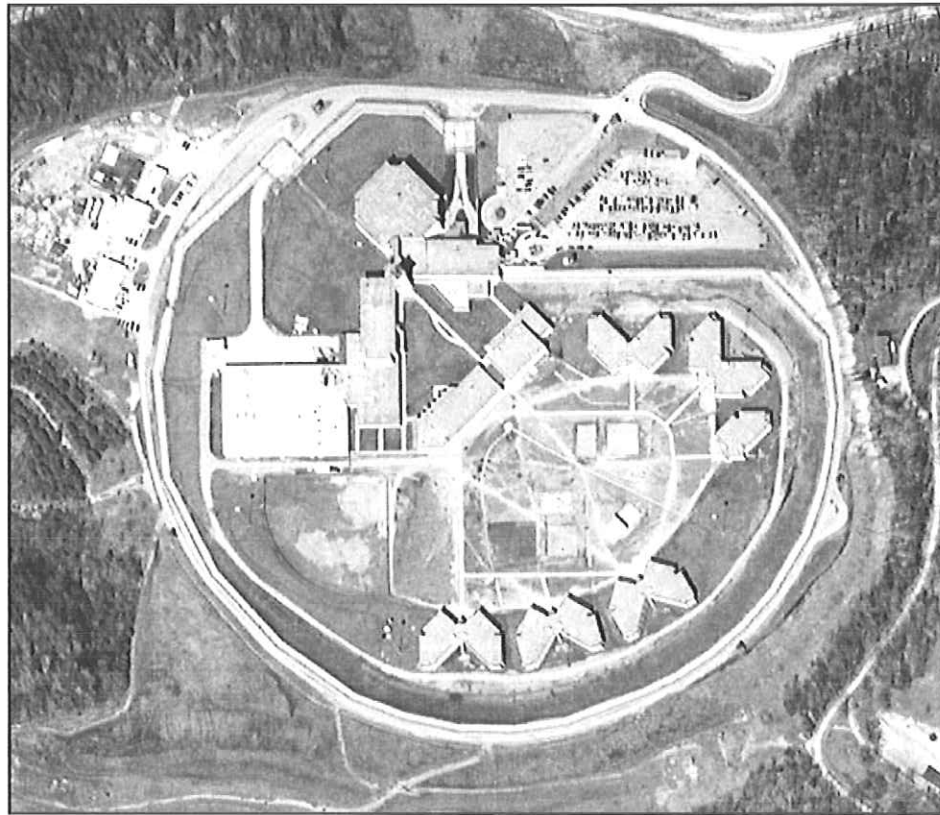
Tucker County Commission
213 First Street
Parsons, West Virginia 26287





Mount Olive Correctional Facility

90027



West Virginia Regional Jail and Correctional Authority

1325 Virginia Street, East
Charleston, West Virginia 25301

Design and construction inspection services for all site development project elements for a new 792 bed maximum and medium security state-of-the-art correctional center. Firm's responsibility encompasses all on-site (within the property boundaries of 110-acre site) project civil engineering and landscape architectural design including site grading and drainage, storm sewers, sanitary sewerage, potable and fire water supplies, roads and parking facilities, outdoor recreational facilities, and the interfacing and coordination with engineering consultants providing design of utilities to the property boundaries and with various regulatory agencies.

ZDS Design/Consulting Services

Project Name: *The Museum of Cultural & History - HVAC Renovations*
Client: *State of West Virginia Charleston, WV*

Client Contact: Mr. Mark Lynch, Director of
Facility Operation
Phone (304) 558-0220
The Cultural Center - Bldg 9
WV Capitol Complex
Charleston, WV 25305

Services: Engineering Master Planning,
Indoor Air Quality evaluation, energy
analysis, and Mechanical/Electrical design,
bidding and construction administration
services for retrofitting the 228,500 ft²
museum and protecting the artifacts.



Museum of Culture & History

Project Description

ZDS principals and personnel have been involved in numerous design and recommissioning projects for WV State Capitol Complex while at ZDS and through other employment over their careers. These projects required the engineering planning, design, supervision, preparation of construction documents, specifications, construction administration, and commissioning of HVAC systems, sprinkler systems, plumbing systems, electrical power, lighting, fire alarm, security, technology and communications.

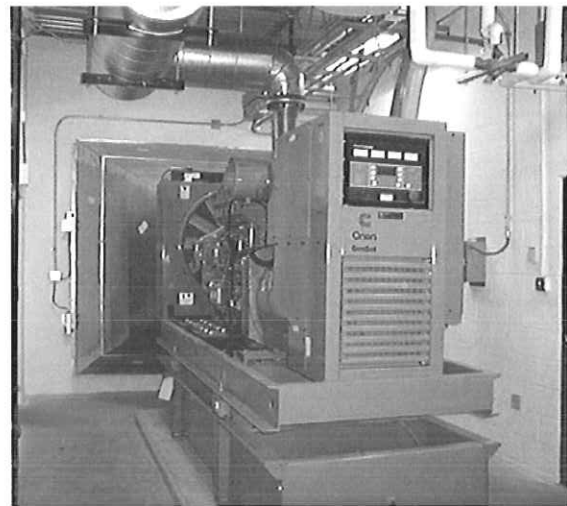
ZDS completed the design for the WV Division of Culture and History correcting their long term HVAC and Indoor Air Quality problems in 2001. Lack of humidity control damaged many of the State's priceless artifacts. Books and other State collections were deteriorating rapidly due to lack of proper control of temperature, humidity, and filtration. The occupants had also experienced allergic reactions and discomfort from the long term high humidity conditions.

PROJECT EXPERIENCE

ZDS identified and designed the solutions. Conserving energy without sacrificing comfort or indoor air quality was a major consideration. The design included converting an all electric resistance heating system to natural gas, comprehensive DDC controls for central monitoring and control, converting AHU's from constant air volume to variable air volume while meeting stringent ASHRAE Indoor Air Quality requirements, provide variable water volume pumping and interfacing with the facility into the new District campus chilled water system to reduce long term operating cost. The design also included providing new boiler plant with redundancy heating and piping distribution system and an emergency generator to help protect the States priceless collections.



New Boiler Plant



New Emergency Generator

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

ZDS is also involved with master planning and design for the District heating system through a Performance Contracting program for the WV Capitol Complex and was selected to provide engineering planning and design services directly through the WV Division of Protective Services for the WV Capitol Complex and all State of WV owned or operated facilities for security, intercom, emergency power, HVAC systems as they relate to security, fire alarm and related systems. This multiyear agreement could be in effect for 10 years.

Total Cultural Center Project Cost:	\$4,500,000
Size:	228,500 FT²
Completion	2001
Estimated Energy Savings:	Reduce HVAC Operating Costs up to 50%.

PROJECT EXPERIENCE

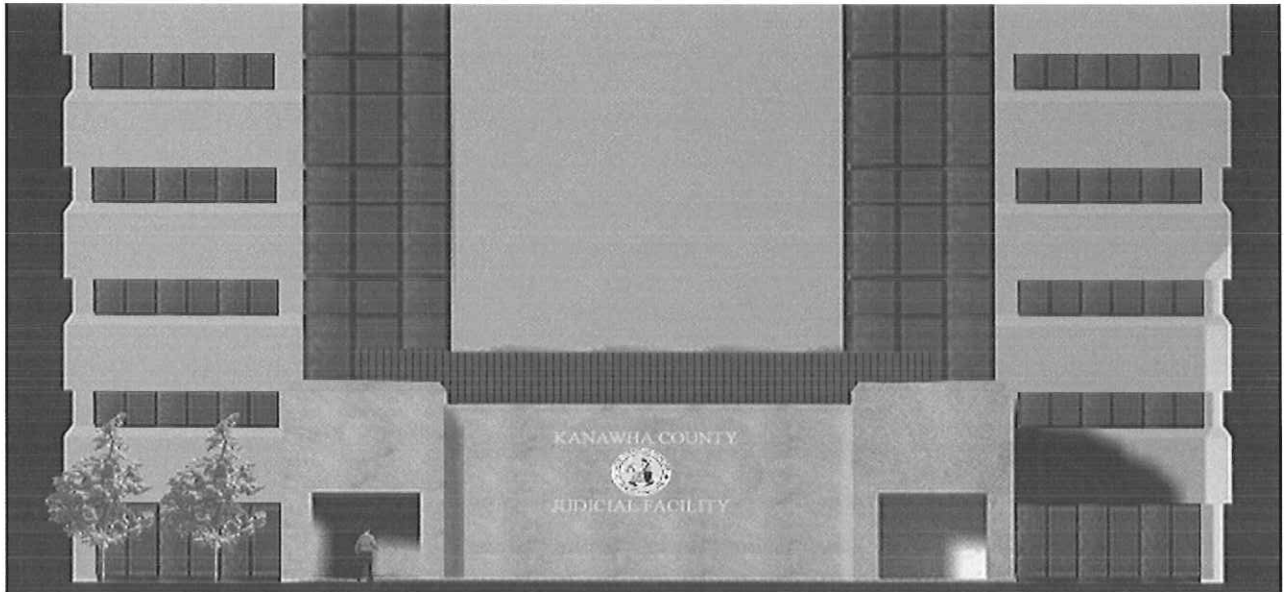
ZDS Design/Consulting Services

Project Name: Kanawha County Judicial Annex - HVAC Retrofits

Client/Location: Kanawha County Commission, Charleston, WV

Client Contact: Ms. Jerie Whitehead, Director,
PO Box 3627
Charleston, WV 25336
Phone (304)-357-0115

Services: Engineering planning, design, bidding and construction administration services comprehensive HVAC retrofits, DDC Controls, smoke control system, sprinklers and plumbing retrofits.



Project Description

The Judicial Annex, located across the street from the Kanawha County Courthouse in Charleston, WV, was originally constructed in 1982. The original eight-story building is attached to a multilevel parking garage.

The Kanawha County Commission initially contracted ZDS in 1998 to evaluate the Judicial Annex's existing mechanical and electrical systems. ZDS prepared an extensive report which showed opinion of costs for many options. The report covered multiple HVAC approaches with advantages and disadvantages for each. Some of the HVAC equipment was in poor condition and while the Owner was deciding on when to proceed with the recommended work, the primary chiller failed. The weather was hot so ZDS was commissioned under emergency conditions to

PROJECT EXPERIENCE

find a solution as soon as possible to avoid closure of the facility. ZDS designed/project managed a replacement chiller within days of the equipment failure which prevented extended closure of the building.

The Kanawha County Commission then hired ZDS to provide engineering design/construction administration services for renovations for the facility and significant additions. The renovations included seven Circuit Court courtrooms; jury deliberation rooms; attorney conference rooms; witness rooms; Court Clerks offices, public research area; adult probation offices; Maintenance Shops, Prosecutors offices, Voter's Registration, Court Administration offices; and all public areas. The engineering for the additions included a new entrance, security checkpoint, and lobby to alleviate a very overcrowded situation and a building expansion for Juvenile Probation and a newly established Family Court.



ZDS designed a VAV air handling system with reheat HVAC system to address health, safety, and IAQ issues by increasing outdoor ventilation air rates, higher filtration, strict humidity control, DDC monitoring/control, carbon monoxide demand control ventilation, outside air measuring/monitoring and other design strategies. Multiple HVAC options with their associated opinion of costs for modifying, updating and replacing the existing equipment were reviewed with the Owner for their preferences to find the best fit with the existing maintenance staff. All HVAC equipment was designed for full DDC controls for remote monitoring, and energy efficiency.

Other support services and building infrastructures improvements installed concurrently include complete voice and data wiring systems, including wiring for LAN; new power distribution for clean and normal power; and new lighting systems that complement the computer environment. Building security improvements included a central security control room, staffed twenty-four hours a day; security vestibule with screening stations; closed circuit monitoring and card access admission systems; secured private judges suites connected to a private elevator; secured prisoner transfer from sally port to courtrooms; emergency call system from courtrooms, chambers and other public-interface points.

<i>Total Project Costs</i>	\$10,270,000
<i>Mechanical Project Cost:</i>	\$3,200,000
<i>Project Size:</i>	Renovations 93,000 ft² plus 23,000 ft² addition
<i>Completion Date:</i>	Completion 2008

PROJECT EXPERIENCE

ZDS Design/Consulting Services

Project Name: *Nick J. Rahall II Technology Center*
Client/Location: *Concord University, located in Athens, WV*

Client Contact: Mr. John Ferguson,
Chief Procurement Officer
PO Box 1000
Athens, WV 24712-1000
Phone: (304)-384-5233

Services: Engineering planning & design for HVAC, Electrical, Plumbing, Fire Protection, Technology, DDC Controls, VAV AHU's, variable water volume pumping, UPS, Emergency Power, energy efficient lighting, & information technology.



Project Description

Concord University had an existing building, White Hall, that they wanted converted to a new state-of-the art technology center. Working through E. T. Boggess Architects, ZDS evaluated the potential mechanical, electrical, plumbing, fire protection and technology needs for significant infrastructure upgrades for an existing building that was not ideally suited for a technology center. After careful analysis, the design team and Owner decided it was best to demolish most of White Hall and construct a 50,000 ft² three-story building attached to the existing remaining structure. Congressman Nick J. Rahall II helped in obtaining the necessary funding to make the project possible and Concord University named the building after him in appreciation.

The quality of HVAC system was crucial to Concord University since they had just spent over a \$1 million correcting Indoor Air Quality (IAQ) problems in an existing relatively new building in which they believed the HVAC system contributed to the problem. ZDS designed around a centralized heating/cooling plant for greater efficiency in overall system operation and provided centralized control and maintenance of primary heating/cooling equipment, with the added

PROJECT EXPERIENCE

benefit of supplemental capacity in the event of a boiler failure. The planning and design services included providing a quality HVAC system and electrical equipment, and their sub-systems to provide a comfortable environment while addressing Indoor Air Quality, energy efficiency, operating costs and meeting the Owner's needs.

HVAC systems were enhanced to meet applicable codes and standards and improved indoor air quality through higher filtration, strict humidity control, ultraviolet light purification air flow measuring/monitoring and other design strategies. The business incubator area was equipped with flexible HVAC zoning and additional power to meet potential varying uses for the space.

The electrical systems included providing uninterruptible power supply, redundant HVAC and emergency power to the central computer center where all of the University's internet/intranet systems resided. Classrooms were equipped with the latest in technology including provisions for some of the future 3-D imaging instruction tools being developed.



The MEP design aids Concord University to operate their facilities efficiently and effectively and the state-of-the-art technology will greatly benefit the faculty and students for many years to come.

ZDS also designed, bid and provided construction administration services for completing the Campus Medium Voltage Loop involving every building on the campus which was completed in 2005 under budget and ahead of schedule. The \$375,000 electrical upgrades also provided the electrical service capability for the new technology center.

MEP Construction Cost:

\$3,200,000 out of a \$9,794,000 total costs

Size:

Approximately 50,000 square-feet

Completion Date:

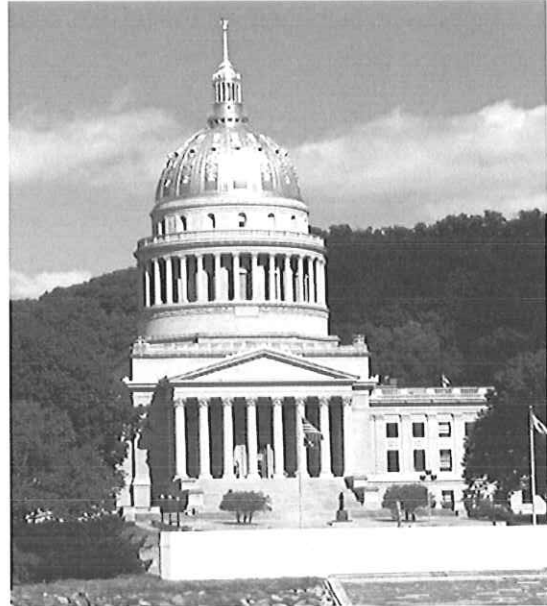
Under construction, completion in 2007

ZDS Design/Consulting Services

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

Client Contact: Mr. Aaron Allred,
Project Manager
Johnson Controls, Inc.
4132 First Ave.
Nitro, WV 25143
Phone: (304)-346-1340
Cell (304) 546-5225

Services: Engineering 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.



Project Description

ZDS Design/Consulting Services and Johnson Controls Inc.

The State of West Virginia was aware that their facilities at the Capitol Complex were aging and in need of significant infrastructure upgrades but were having difficulty in appropriating the necessary funding to make such improvements. Many of the existing boilers and other primary heating equipment are past their expected service life and are in disrepair. The State of West Virginia passed a new bill in 2003 that permits Performance Contracting to be used as an avenue for implementing infrastructure upgrades in State facilities provided the upgrades self-fund within a 15 year time period. The State elected to solicit proposals from various ESCO's with the intention of crafting a major improvement project that would reduce operating costs to the State as well as pay for itself over the 15 year period. After an extensive review and selection process, the Team of Johnson Controls Inc. and ZDS Design/Consulting Services was selected. The scope of the proposal included various energy conservation measures to the Capitol Building as well as Buildings #3, 4, 5, 6, 7 and others. Significant HVAC improvements were engineered for the Capitol Building, as well as Buildings #3, 4, 5, 6, 7, 8 (Governor's Mansion) and provisions for #10 (Holly Grove) plus additional future capacity.

A central heating plant anchored the Facility Improvement Measures. It yielded the elimination of 14 failing boilers with provisions for future expansion of up to 250,000 square-feet of office space. A centralized heating plant offers greater efficiency in overall system operation,

PROJECT EXPERIENCE

centralized control and maintenance of primary heating equipment, with the added benefit of supplemental capacity in the event of a boiler failure. The first phase of the program began in May 2005 with the evaluation of the existing heating plants, HVAC equipment, and their sub-systems to quantify deficiencies and potential opportunities to improve comfort, IAQ, extension of equipment life and an overall reduction in operating costs. Preliminary engineering studies reflected that millions of dollars could be saved annually in energy, operating cost and deferred capital costs by implementing this multi-million dollar program.

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



The program's work was expanded as the State realized the value of the program and aids in helping them operate their facilities more efficiently and effectively. The WV Division of Protective Services also incorporating some of the integrated campus wide security, fire alarm, intercom, emergency power, and communications infrastructure upgrades either in with the base program work with the remaining through a separate contract using ZDS to design and administer the construction activities for 2,137,400 square-feet involving 15 buildings at the campus.

Performance Contracting Program Costs:

Potential Savings:

Size:

Completion:

Up to approximately \$20,000,000

Improvements self-fund within 15 years

1,929,155 FT²

2007 for Construction

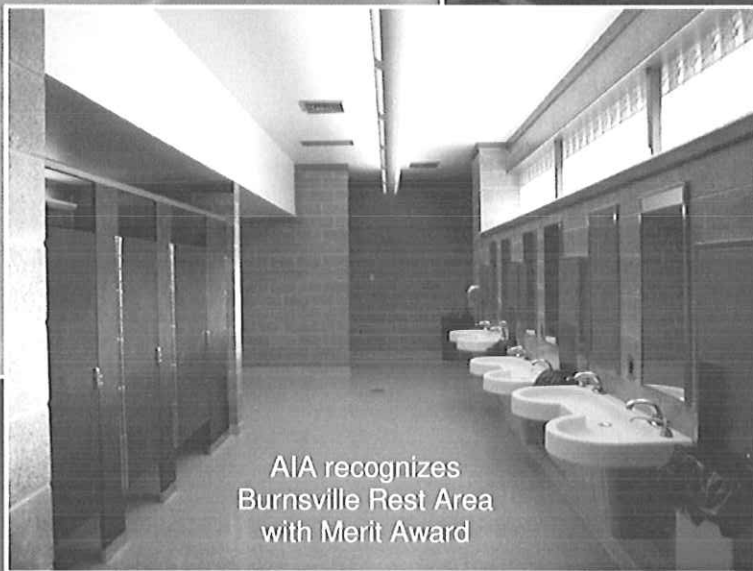
ZDS

Design/
Consulting
Services

Engineering for Rest Areas and Welcome Centers

HVAC, Plumbing and Electrical Design

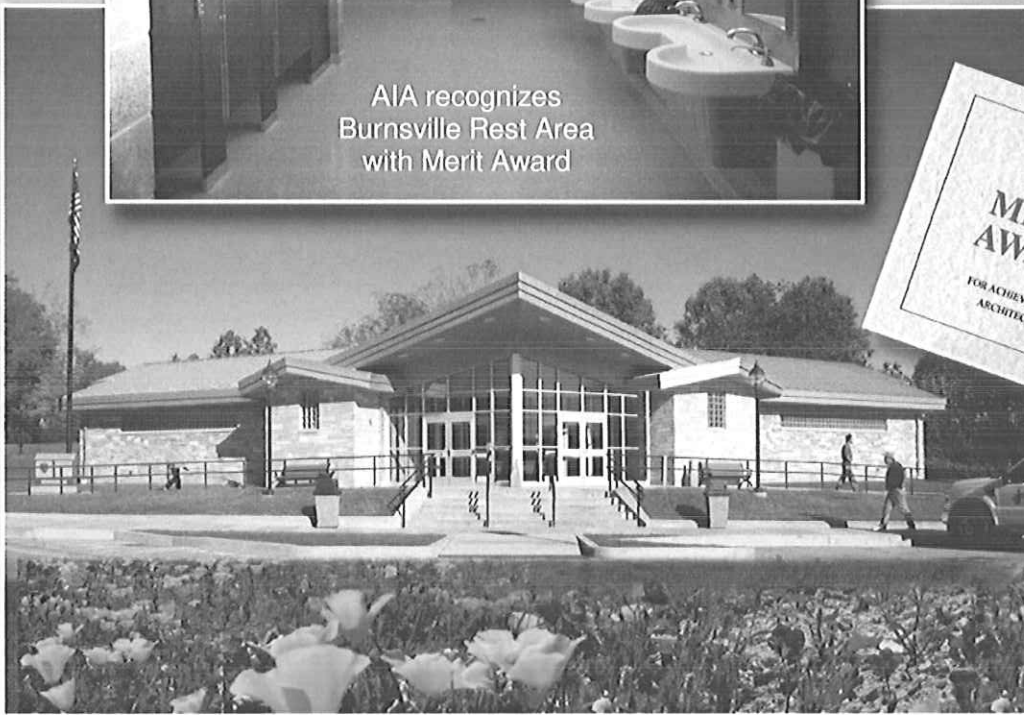
**ZDS engineered the
prototype for all of the
statewide rest areas
and welcome centers
throughout West Virginia.**



AIA recognizes
Burnsville Rest Area
with Merit Award



Morgantown Rest Area and
Welcome Center



Design/Consulting Services

PROJECT EXPERIENCE

ZDS Design/Consulting Services

Project Name: *Harris Hall - HVAC and Electrical Retrofits*
Client/Location: *Marshall University, Huntington, WV*



Client Contact: Mr. Tony Crislip,
Project Manager,
Mechanical/ Electrical Trades
One John Marshall Drive
Huntington, WV 25755-2450
Phone (304)-696-6241

Services: Engineering planning, design, bidding and construction administration services HVAC & Electrical retrofits, DDC Controls, AHU's replacement, chiller replacement, VAV pumping, new electrical service, switchgear and fire alarm systems.



Project Description

Harris Hall, on Third Avenue on the north side of campus, was originally constructed in 1976. The four-story building houses the departments of classical studies, geography, history, religious studies, philosophy, psychology, counseling and rehabilitation, adult and technical education, and administrative education. Marshall University recognized that the HVAC and electrical systems were at the end of their expected service life and were experiencing frequent equipment failures, power outages and numerous complaints on comfort and "stuffy air".

PROJECT EXPERIENCE

Marshall University initially contracted **ZDS** to evaluate Harris Hall's existing mechanical/electrical systems and prepare an extensive report. **ZDS's** cost estimates showed it would take \$3 million to meet their needs. The planning document covered multiple HVAC approaches with advantages and disadvantages for each to provide a comfortable environment while addressing Indoor Air Quality, energy efficiency, operating costs and meeting the Owner's goals. The report also covered related work including roof replacement, lighting upgrades, and energy conservation measures.

We worked with the University on different approaches to fit the project within available funding while defining alternates that would permit the Owner to complete the HVAC/Electrical retrofits if more funding could be found or to phase the work as funding was found. With the aid of **ZDS's** planning, Marshall University was able to phase the project. The facility was vacated for less than 60 days in the summer of 2006 to allow the contractor to perform the major construction efforts without working around the occupants. The project was successful through careful planning and coordinating construction efforts between the University, the design and the installation.

The HVAC system had a direct impact on the health and safety of the college students and staff. Previously, occupant comfort was not being maintained and recommended levels of outside ventilation air were not being introduced to the classrooms. **ZDS** designed a VAV air handling system with reheat HVAC system to address health, safety, and IAQ issues by increasing outdoor ventilation air rates, higher filtration, strict humidity control, DDC monitoring/control, carbon monoxide demand control ventilation, outside air measuring/monitoring and other design strategies. Multiple HVAC options with their associated opinion of costs for modifying, updating and replacing the existing equipment were reviewed with the Owner for their preferences to find the best fit with the existing maintenance staff. A ground mounted air cooled chiller with antifreeze and variable water volume pumping was also designed. All HVAC equipment was designed for full DDC controls for remote monitoring, trouble shooting and energy efficiency.

A new addressable fire alarm system, electrical service, electrical switchgear and additional panelboards were also included in the design. A section of the original aluminum bussed switchgear had previously "melted" which caused an extensive outage while a custom replacement part could be manufactured. The electrical retrofits addressed this problem area. Energy efficient lighting with motion detectors and water conservation features were also incorporated into the building.

Tony Crislip, Manager, Marshall University stated "*This building serves as a pilot for how all our buildings should be constructed. This building is the most comfortable one on campus!*"

MEP Project Cost:	\$2,856,000
Project Size:	56,680 square-feet
Completion Date:	Completion fall 2006

Client: *Charleston Area Medical Center, Charleston, WV*

ZDS's principals and personnel have worked with CAMC for many years while at ZDS and through previous employers on many design, energy conservation and commissioning projects involving sophisticated mechanical and electrical systems while meeting stringent health care requirements and safety of the patients for CAMC since 1982. CAMC is the largest health care provider in WV and consists of multiple separate hospital campuses, satellite medical office facilities, training facilities and clinic facilities encompassing nearly 10 million square feet. Some of the projects ZDS's principals and staff have been involved with at each facility are listed beside the pictures of each of the following three hospital facilities.



Women & Children's Hospital

- **LDRP Additions/Renovation**
- **NICU & PICU Renovations**
- **Emergency Room Renovations**
- **Patient Room Renovations**
- **District Chiller Plant Replacement & Interconnect**



CAMC General Division

- **Special Care Facility**
- **Physical Therapy**
- **Emergency Room Retrofit**
- **3-4-5-6 South Patient Retrofit**
- **District Chiller Plant Replacement & Interconnect**
- **Medical Records**
- **Wound Center**

Todd Zachwieja also managed the implementation of an aggressive energy conservation program that saved CAMC approximately \$800,000 annually and paid for the mechanical, electrical and controls improvements made to the facilities as part of this program while employed a regional manager for one of the countries pioneering Performance Contracting companies. These projects

PROJECT EXPERIENCE

included recommissioning, designing and construction management for HVAC modifications, steam system upgrades, heating plant/distribution modifications, controls, electrical modifications and operational changes to CAMC's existing facilities.



CAMC Memorial Division

- **Emergency Room Renovations**
- **Patient Room Renovations**
- **Chiller Replacement/Interconnect**
- **Radiology/Nuclear Medicine Renovations**
- **Cath Lab, SICU, MICU Renovations & CT Scan**
- **Emergency Generator/Fuel Oil Storage**
- **Surgery Addition Commissioning**
- **Laundry Facility Renovations**

Ted Zachwieja and Todd Zachwieja's involvement also included review of the design and commissioning of a \$40 million dollar surgery addition to the Memorial Division campuses. This commissioning work paid for itself in less than two years from the savings generated and addressed maintenance reliability and future expandability issues.

Health care upgrades involve low pressure steam for HVAC heating, medium pressure steam for sterilization/process heating and 100 to 150 psi steam for distribution. Steam heating upgrades involved steam power pumping, steam trap optimization, steam-to heating hot water, central laundry heating, and steam heating in HVAC equipment.

References: *Bill Williams, Consultant for Plant Operations*
Ray George, Corporate Dir. of Construction

Phone (304) 388-5544
Phone (304) 388-9740

PROJECT EXPERIENCE

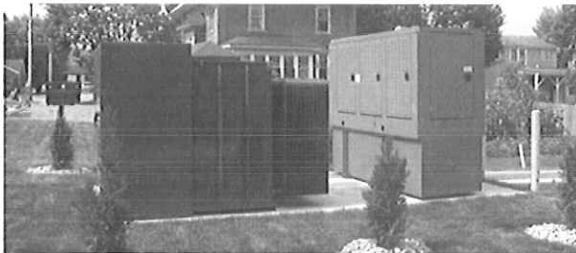
ZDS Design/Consulting Services

Project Name: ***New Mercer County Courthouse Annex***
Client/Location: ***Mercer County Commission, Princeton, WV***

Services: Engineering planning, design, bidding and construction administration services HVAC, Electrical, Plumbing, and Fire Protection working through a local Architect.



Project Description: The new Mercer County Courthouse Annex, located across the street from the Mercer County Courthouse, was completed in 2006. The two-story building houses the Magistrate courtrooms, jury deliberation rooms, attorney conference rooms, video conference rooms, witness rooms, Court Clerks offices, public research area; adult probation offices, Prosecutors offices, Probate offices, Court Administration offices; and public areas.



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

<i>Approximate Project Cost:</i>	\$6,000,000
<i>Project Size:</i>	32,000 square-feet
<i>Completion Date:</i>	Completion 2006

Staff & Resources



Staff

Resumes of key staff members are included in this section. Specific roles of each member would be determined following a more detailed evaluation of the project requirements. Joseph Bird would serve as Project Officer and coordinate the initial project evaluation phase.

Quality Control

Chapman Technical Group has written its own Quality Control/Quality Assurance program, which is known internally as STARS. This program outlines the process by which projects are procured, managed, and executed and includes checklists and peer reviews along the way. A sample booklet of the STARS program can be made available at the firm interview.

Compatibility of Materials

Chapman Technical Group is constantly working with manufacturers and suppliers to learn about new construction materials and methods. Furthermore, all key team members participate in continuing education to keep current in industry trends and standards. That, coupled with our many years of hands-on experience, ensure compatibility of materials used in all of our projects.



JOSEPH E. BIRD, ASLA
Senior Vice President
Project Manager

EDUCATION

West Virginia University, BSLA, 1978

REGISTRATION

Landscape Architect, West Virginia, 1981

**PROFESSIONAL
HISTORY**

August 1985 to Present: Chapman Technical Group
Senior Vice President and Project Manager.

May 1978 to August 1985: Kelley, Gidley, Blair & Wolfe, Inc.
Landscape Architect and Project Manager.

Mr. Bird is a project manager and registered landscape architect. His experience ranges from large site development projects to the management of multi-discipline and architectural projects.

34 years professional experience.

**PROJECT
EXPERIENCE**

Site Development: Site planning and project management for numerous projects throughout West Virginia ranging from small campus sites to large sites for commercial, government, industrial, and institutional development. Projects include military complexes, campuses, public housing developments and other public facilities.

Parks and Recreation: Projects include swimming pools, bathhouses, cabins and support facilities for the West Virginia Division of Natural Resources and similar facilities for county and municipal park systems. Also involved in the design of facilities such as softball fields, fishing access facilities, recreation facilities for prisons, as well as passive recreation areas for public and private clients.

Miscellaneous: Other project experience includes the urban planning and development, streetscape design, roadway and storm drainage projects, as well as the project management of numerous major architectural projects throughout West Virginia.

AFFILIATIONS

West Virginia Chapter of the American Society of Landscape Architects

AWARDS

Honor Award for Shrewsbury St. Redevelopment Plan
West Virginia Chapter of American Society of Landscape Architects



DALE E. WITHROW, AIT
Project Coordinator, Department Manager
Architecture

EDUCATION

West Virginia Institute of Technology, AS, Drafting and Design, 1975.

**PROFESSIONAL
HISTORY**

November 2000 to Present: Chapman Technical Group
Project Coordinator/Department Manager.

March 1993 to August 2000: The HDMR Group, Inc.
Project Coordinator.

February 1990 to March 1993: AFAB Services
Owner - Designer/Drafter.

Prior to 1990 Mr. Withrow worked with several architectural and engineering firms as an employee and independent consultant.

From 1978 to 1987 he was a Facilities Planner for the Kanawha County Board of Education.

Mr. Withrow is a Project Coordinator involved in all aspects of a wide variety of architectural projects. He is also Manager of the Architecture Group.

37 years professional experience.

**PROJECT
EXPERIENCE**

Project Design and Management: Experience ranges from drafting, detailing and design through construction observation and project management of numerous building projects in West Virginia, Kentucky and North Carolina including:

- | | |
|----------------------------------|--|
| - Residential/Housing | - Military Support Facilities/Armories |
| - Governmental Facilities | - Grocery and Drug Chain Stores |
| - Hospital/Healthcare Facilities | - Industrial Plant/Laboratory Facilities |
| - Public School Facilities | - Office Buildings |
| - College Athletic Facilities | - Banking Facilities |
| - Hotel/Hospitality Facilities | - Americans with Disabilities Act |
| - Airport Support Facilities | Assessment and Implementation |
| - Historic Preservation | - Public Safety Facilities |

AFFILIATIONS

Certified Architect-in-Training, State of Arizona
Associate Member WVAIA
Secretary, St. Albans Business and Community Development Group
Vice Chair, Friends of the Alban Theatre
Board Member - St. Albans Chamber of Commerce
Chairman, St. Albans Blueprint Communities



PHILLIP A. WARNOCK, NCARB, AIA
Project Architect

EDUCATION

The University of Tennessee, BArch, 1995

REGISTRATION

Architect, West Virginia, 2003

Architect, Tennessee, 2002

**PROFESSIONAL
HISTORY**

September 2003 to Present: Chapman Technical Group
Project Architect.

June 2002 to July 2003: ZMM
Architect.

June 1995 to May 2002: Lockwood Greene
Intern Architect.

August 1991 to July 1993: Omni Associates
Architectural Draftsman.

21 years professional experience with additional experience in construction, interior design and developing.

**PROJECT
EXPERIENCE**

Project Participation and Design: Experience ranges from design, detailing and drafting through project management and construction administration of building projects in various states, including West Virginia, Tennessee, Kentucky and South Carolina. Project experience includes:

- Public School Facilities
- Community Centers
- Recreational Facilities
- Aviation Facilities
- Health Care/Hospice Facilities
- Medical and Psychiatric Clinics
- Pharmaceutical Facilities
- Research and Development Labs
- Office Buildings
- Rest Areas and Welcome Centers
- Historic Preservation
- Historic Renovation/Additions
- Adaptive Reuse
- Governmental Facilities
- Military Support Facilities/Armories
- Multi-Family Housing
- ADA Assessments
- HUD 811, 202 and ECHO Facilities
- Small Cities Block Grants
- Public Safety Facilities

AFFILIATIONS

National Council of Architectural Registration Boards (NCARB)
American Institute of Architects (AIA), Executive Committee 2010-2012

AWARDS

2008 AIA West Virginia Honor Award for Excellence in Architecture
For the historic preservation of the Upshur County Courthouse.

2010 AIA-West Virginia Merit Award for Achievement in Architecture
For the I-79 Rest Areas in Burnsville



W. THOMAS CLOER, III, AIA, NCARB
Project Architect

EDUCATION

University of Tennessee, BArch, 2001

REGISTRATION

NCARB Registered Architect, 2009
IDP Program completed.

**PROFESSIONAL
HISTORY**

October 2006 to Present: Chapman Technical Group
Project Architect and Architectural Designer

2001-2006: NVisions Architects
Architect Intern and Architectural Designer

11 years professional experience.

**PROJECT
EXPERIENCE**

Experience ranges from drafting, detailing and design through project management and construction administration of building projects throughout West Virginia including the following project types:

Public School Facilities
Government Facilities
Office Buildings
Medical Office Facilities
Single Family Housing
Multi-family Housing
Recreational Facilities
ADA Assessments
Site Planning

AFFILIATIONS

American Institute of Architects
City of St. Albans Property and Maintenance Board, Member
City of St. Albans Historic District Committee, Member
Boy Scouts of America Troop 250 Committee Member



SHARON L. CHAPMAN

**President
Interior Designer**

EDUCATION

University of Charleston, Carleton Varney Department of Art and Interior Design, BA, Interior Design, 1993

REGISTRATION

Allied Member, ASID

**PROFESSIONAL
HISTORY**

July 1996 to Present: Chapman Technical Group
President and Interior Designer.

January 1991 to July 1996: Chapman Technical Group
Executive Vice President and Interior Designer.

21 years professional experience.

**PROJECT
EXPERIENCE**

Space planning, interior design, material selections and furniture layouts for new and renovation projects including a courthouse annex, city hall renovations and other public buildings, private offices, commercial facilities, recreation facilities, industrial buildings, and residential properties. Also involved in building renovation feasibility studies and use analyses, and building facade renovation projects.

AWARDS

University of Charleston, Academic Achievement Award for Art and Design
Finalist, Entrepreneur of the Year Award 1999
Finalist, Entrepreneur of the Year Award 2000
St. Albans Renaissance Group, Business Person of the Year 2002
Junior Achievement Chairman's Award, 2002-2003
St. Albans Renaissance Group, Appreciation Award 2005
George Warren Fuller Award 2005
Thomas Memorial Foundation Quiet Hero Award 2009
University of Charleston, Alumni Achievement Award 2012

AFFILIATIONS

Allied Member, American Society of Interior Designers
Rotary, St. Albans, West Virginia - Past President 2002-2003
Member, West Virginia Chamber of Commerce
Member, Charleston Area Alliance - Honorary Board Director
Member, Putnam County Chamber of Commerce
Member, St. Albans Chamber of Commerce
Member, Contractor's Association of West Virginia
Board of Directors, Thomas Memorial Hospital Foundation
AWWA West Virginia Section
Member, STARDA Board - St. Albans
BB&T Advisory Board
Board of Directors - Gabriel Project of West Virginia



ROBERT G. BELCHER, P.E.
Senior Vice President, Engineering
and Project Officer

EDUCATION

West Virginia Institute of Technology, BSCE, 1983

REGISTRATION

Civil Engineering, West Virginia, 1996
Civil Engineering, Ohio, 2006

**PROFESSIONAL
HISTORY**

January 1987 to Present: Chapman Technical Group
Senior Vice President and Project Officer.

June 1984 to January 1987: Regional Intergovernmental Council
Planning and Development Council for West Virginia Region III - Metropolitan
Planning Organization for Charleston, WV, MSA.

29 years professional experience.

**PROJECT
EXPERIENCE**

Water Systems: Design and project management for numerous water systems for both public and private water companies. Projects include new water treatment plants as large as 10 MGD, improvements to existing plants, water mains and distribution systems. Water storage projects include glass-lined steel tanks, welded high-strength steel tanks, and elevated pedestal tanks.

Wastewater Systems: Design and project management for numerous wastewater systems throughout West Virginia. Projects include new, secondary and tertiary wastewater treatment plants as large as 4.5 MGD, improvements to existing plants, small-flow treatment plants, new and rehabilitation of wastewater collection systems, and facility plan updates.

Miscellaneous: Design and project management for large highway and bridge projects, airport improvements projects, large stormwater management projects, as well as potable water and wastewater system design for site development projects throughout West Virginia.

AFFILIATIONS

Water Environment Association - WV Section
Contractor's Association of West Virginia - Associate Member
American Water Works Association - WV Section
WV Society of Professional Engineers
American Council of Engineering Companies - ACEC/WV
WVUIT Civil Engineering Advisory Board
WV Qualifications Based Selection (QBS) Council

AWARDS

George Warren Fuller Award, 2001



STEPHEN M. JOHNSON, PE
Group Manager
Civil/Environmental Engineering

EDUCATION

West Virginia Institute of Technology, BSCE, 2004

REGISTRATION

Civil Engineering, West Virginia, 2009
Civil Engineering, North Carolina, 2008
Civil Engineering, Virginia, 2011

EXPERIENCE

January 2009 to Present: Chapman Technical Group
Civil Engineer

October 2006 to January 2009: McKim and Creed
Civil Engineer

May 2004 to October 2006: Chapman Technical Group
Civil Engineer

June 2001 to May 2004: Allegheny Power
Gas Support Technician/Intern

8 years professional experience.

**PROJECT
EXPERIENCE**

Water Systems: Overall experience includes planning, design, bidding, and construction administration/management of various public and private water system projects throughout West Virginia, Virginia, and North Carolina. Specific project experience includes distribution systems, river crossings, horizontal directional drills, wells, raw water intakes, transmission lines, booster stations, treatment plants, ground and elevated water storage tank design, painting, and rehab, SCADA systems computer modeling, treatment process evaluation, and problem troubleshooting in existing systems.

Wastewater Systems: Overall experience includes comprehensive system master plans, design, bidding, construction administration/management of various public and private wastewater system projects throughout West Virginia, Virginia, and North Carolina. Specific project experience includes gravity and low-pressure collection systems, pump stations and force main transmission systems, treatment plant process evaluation and design, trenchless pipeline rehabilitation, bypass pump system design, odor and corrosion control, effluent infiltration ponds, decentralized and alternative on-site disposal systems, and SCADA systems.

Stormwater Systems: Overall experience includes comprehensive system master plans, design, bidding, construction administration/management of various public and private stormwater system projects throughout West Virginia, Virginia, and North Carolina. Specific project experience includes drainage basin hydraulic analysis, stormwater collection, detention and BMP system design, construction stormwater management plan preparation, and MS4 permit guidance.



DAVID C. HOY, P.E.
Civil/Structural Engineer

EDUCATION

West Virginia University, BSCE, 2006

REGISTRATION

P.E., West Virginia, 2011

**PROFESSIONAL
HISTORY**

January 2007 to Present: Chapman Technical Group
Civil Engineer

Summer 2005: Advantage Home and Environment

Assisted structural engineer with home inspections, and report preparation.

5 years professional experience.

**PROJECT
EXPERIENCE**

Structural: Investigation, analysis, and design of various building structural systems, including foundation design. Review shop drawings and performs periodic site visits.

Civil: Design of highways, bridges, and airport improvements projects throughout West Virginia.

AFFILIATIONS

Chi Epsilon, National Civil Engineering Honor Society

ASCE, Member

WV Section YMF, Treasurer



Todd (Ted) A. Zachwieja
PE, C.E.M., LEED AP

Chief Executive Officer
Principal-in-Charge
M/E/P Design Project Manager

Qualifications

Todd has more than 28 years of experience in the design, construction management, and specifications for mechanical engineering, heating, ventilating, air conditioning, plumbing, electrical, and lighting, as well as indoor air quality analysis and building system commissioning for educational, commercial, industrial and health care facilities. His specialties include mechanical engineering, HVAC systems master planning, conceptual design, energy conservation program development, commissioning and IAQ analysis relating to HVAC systems. He has extensive experience in industrial, commercial, hospitals and educational design. Some of his project experience includes new Mercer County Courthouse – Princeton, Kanawha County Commission – 120,000 sf additions/renovations for the Judicial Annex/Kanawha County Courthouse – Charleston, Laidley Towers – Charleston, renovations to the WV State Capitol Complex, Cultural Center HVAC renovations, Union Carbide, United Center – Charleston, Phillip Morris USA, Rhone-Poulenc, Toyota, Olin Corporation, Walker Machinery, West Virginia Air & Army National Guard, Bank One – WV, Kohl's, Sears, West Virginia Public Service Commission Headquarters, and Yeager Airport. He also designed one of the largest geothermal heat pump applications in the mid-Atlantic region, and commissioned HVAC systems and mechanical engineering at many General Motors' facilities in North America.

Some of his health care experience includes millions in renovation and new construction design for Charleston Area Medical Center, including commissioning of Charleston Area Medical Center's \$41 million Surgery Replacement Center and many projects at General Division, Memorial Division, and Women & Children's Hospital. Other health care experience includes Bluefield Regional Medical Center, Hopemont Hospital, Monongalia General Hospital, Montgomery General Hospital, United Hospital Center, St. Mary's Hospital, Summersville Memorial Hospital, Thomas Memorial Hospital, Webster Memorial Hospital, Cabell Huntington Hospital, Welch Emergency Hospital, Surgicare Center, VA Hospital - Clarksburg, VA Hospital - Huntington, Mercy Medical Center, Wayne Memorial Hospital, and Webster Memorial Hospital.

Todd also has experience in providing M/E design for the following colleges and universities including Alderson Broadus College, Bluefield State College, Concord University, Fairmont State College, Harvard University, Marshall University, Ohio University's Athens & Chillicothe campuses, Southern West Virginia Community & Technical College, University of California-Davis, University of Charleston, Washington & Lee University, West Virginia Wesleyan College, and West Virginia University. He was recognized nationally for his work with Ohio University in development of a performance contracting program that is anticipated to save \$2.5 million annually in energy and operating costs.

Other experience includes providing M/E/P design for schools in the following counties: Calhoun, Clay, Grant, Greenbrier, Hardy, Harrison, Jackson, Kanawha, Lewis, Logan, Marion, McDowell, Mercer, Mingo, Monroe, Ohio, Pocahontas, Putnam, Raleigh, Randolph, Ritchie, Summers, Taylor, Tucker, Upshur, Webster, and Wyoming. Some of his project experience includes the development and design of a pilot geothermal heat pump HVAC with variable speed pumping system at Webster County High School, which reduced electric bills by more than 40% while meeting IAQ requirements.

Prior to joining **ZDS**, Todd Zachwieja coordinated millions in comprehensive energy conservation programs resulting in annual energy savings of millions per year and managed a profitable regional office for one of the country's largest energy service companies. He also developed computer programs for building energy analysis and monitoring and presented technical papers at regional and national conferences.

Education

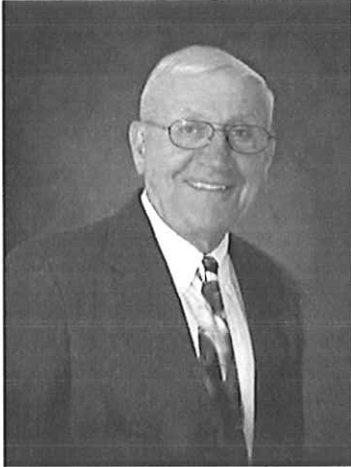
Bachelor of Science in Mechanical Engineering from West Virginia Institute of Technology in 1982
Masters of Science in Engineering Management from the University of West Virginia College of Graduate Studies in 1989

Registrations

Professional Engineer, West Virginia, No. 10,127
Certified Energy Manager (C.E.M.), National Certification
LEED® Accredited Professional, National Certification through USGBC
Professional Engineer, Georgia, No. 18253
Professional Engineer, Kentucky, No. PE-17961
Professional Engineer, North Carolina, No. PE-017445
Professional Engineer, Ohio, No. E-53587
Professional Engineer, Pennsylvania, No. PE-040929-R
Professional Engineer, South Carolina, No. 25985
Professional Engineer, Virginia, No. 0402 025427

Professional Affiliations

Charter member Mountaineer Chapter of American Society of Heating Refrigeration and Air Conditioning Engineers (ASHRAE)
Served as ASHRAE's Energy and Technical Affairs Chairman for 6 years
Recognized by the International Who's Who of Professionals
Recognized nationally as West Virginia's Business Man of the Year
Recognized nationally in 2007 as a "Legend in Energy"
Recognized 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
Member of the American Association of Hospital Engineers
Member of the National Society of Professional Engineers
Member of the National Society of Plumbing Engineers
Member of the International Code Council
Contributing editor and served on the Editorial Review Panel for "The Handbook of Building Management and Indoor Air Quality," "Ventilation for a Quality Dining Experience," INvironment Professional, Power Prescriptions and other publications and articles dealing with Indoor Air Quality (IAQ) and MEP engineering systems
Presented at regional and national conferences including the National System Commissioning Conference

Qualifications**Ted T. Zachwieja****Principal-in-Charge
Construction Administration**

Ted's responsibilities include over 45 years of experience in mechanical and electrical systems design and construction administration. His specialties include the design and development of mechanical and electrical systems, master planning and budgeting for mechanical and electrical systems, and management of complex design and construction projects. He is also a Codes and Standards Specialist.

Ted has been involved in all aspects of mechanical and electrical design and construction since 1958, including machine design, structural design and design of heating, ventilating, air conditioning, plumbing, fire protection and electrical systems. His experience includes work for U.S. Steel, Union Carbide, Rhone-Poulenc, Bluefield Regional Medical Center, Charleston Area Medical Center, United Hospital Center, Kanawha County Schools, Marshall University, West Virginia Capitol Complex, West Virginia Institute of Technology, West Virginia University, Bank One and many others in the private sector. Ted's design regarding Chase Towers – Charleston included conducting a comprehensive energy audit, design of a Building Automation Energy Management System, HVAC renovations, design of flat plate heat exchanger system for the perimeter fan coil units and design of the boiler replacement.

Ted has been involved in the planning, design and construction administration of Concord University's Technology Center and Concord's campus medium voltage upgrades, Marshall University's Harris Hall renovations, Southern West Virginia Community & Technical College's renovations, West Virginia University's (WVU) White Hall and Armstrong Hall, WVU's Wise Library Sprinkler System, WVU's Chilled Water Loop Interconnect – Morgantown, Charleston Area Medical Center (CAMC), Memorial Division Chiller Replacement, CAMC's General Division Chiller Replacement, Variable Pumping System and Chillers Interconnect – Charleston, and many others. Throughout the years, Ted has worked on new and renovation projects such as West Virginia University Stadium and Forestry Building – Morgantown, addition and renovation of the air conditioning system for the West Virginia State Capitol Building – Charleston, Conley Hall and Science Building HVAC renovations and additions, West Virginia Institute of Technology - Montgomery, Indoor air quality (IAQ) and HVAC renovations of Andrew Jackson Junior High School for Kanawha County School Systems, Fume Hood Design and HVAC additions and renovations for Union Carbide - Charleston, and Rhone Poulenc - Institute, HVAC renovations for the Benedum Student Center at West Virginia Wesleyan College - Buchannon, Greenbrier East and Greenbrier West Schools, Mingo County Schools, Raleigh County Schools including new Shady Springs Middle School, new Trap Hill Junior High School, Academy of Career and Technology Center HVAC renovations, Marsh Fork Elementary renovations, Park Middle School renovations, Woodrow Wilson High School renovations, Randolph County's Elkins Middle School renovations, Pocahontas County High School (Geothermal) renovations, Wyoming County Schools, Tucker County Schools, Webster County High School, Glade Elementary/Middle School and Webster Springs Elementary School HVAC renovations (Geothermal) and exterior renovations, and various other secondary schools.

Ted was involved with the mechanical and electrical renovations for the State of West Virginia Library Commission Cultural Center as part of a total \$4.5 million project. The indoor air quality, temperature and humidity each were not in accordance with good design practices for this type of structure. **ZDS** was commissioned to correct these deficiencies while conserving energy.

Ted was selected as one of three engineers to train and teach a course designed by the Department of Energy and American Society of Heating, Refrigeration and Air Conditioning Engineers for emergency building temperature restrictions.

Prior to forming **ZDS**, Ted was regional manager for a hospital design firm and responsible for designing, construction management and project management for over \$200 million in hospital and health care facilities. The facilities were located over eastern United States. Some of his health care experience includes millions in renovation and new construction design for Charleston Area Medical Center's Special Care Facility. Other local health care experience includes Bluefield Regional Medical Center, Hopemont Hospital, Monongalia General Hospital, Montgomery General Hospital, United Hospital Center, St. Mary's Hospital, Summersville Memorial Hospital, Thomas Memorial Hospital, Webster Memorial Hospital, Cabell Huntington Hospital, Welch Emergency Hospital Surgicare Center, VA Hospital - Clarksburg, VA Hospital - Huntington, Mercy Medical Center, and Webster Memorial Hospital.

Professional Affiliations

Construction Specifications Institute (Charter Member)

American Society of Mechanical Engineers

American Society of Heating, Refrigeration & Air Conditioning Engineers

WV Mountaineer Chapter ASHRAE Past President and Charter Member

Association of Energy Engineers

Association of Hospital Engineers

WV Society of Hospital Engineers

Professional Affiliate Member of AIA

WV Association of Physical Plant Administrators



James E. Watters

**Project Manager
Production Manager**

Qualifications

Jim has over 35 years experience in design and implementation of HVAC, plumbing and electrical systems including 9 years in the construction industry. He has a comprehensive knowledge of construction documents, contracts, and development of cost estimates, budgets and schedules. Jim's strengths reside in his ability to manage projects and people in an organized and cost-effective manner.

Jim has been involved with the design and production of mechanical and electrical drawings including HVAC, plumbing, fire protection, lighting, electrical power and specialized systems. He has worked with and managed engineers in projects for health care, educational and commercial buildings in the states of West Virginia, Ohio, Kentucky, Virginia, Georgia, New York, Arizona, Illinois and Massachusetts. He has extensive experience in energy savings' programs for HVAC, plumbing and electrical systems in hospitals, state and government office buildings, school systems, and manufacturing facilities, as well as managing performance contracts for the state of Georgia totaling \$10,000,000 in construction costs on various projects.

Some of Jim's HVAC, plumbing, fire protection and electrical project experience includes Eleanor Maintenance Facility for the West Virginia Department of Military Affairs and Public Safety in Eleanor, Kings Daughters Medical Center in Ashland (multiple projects exceeding \$12,000,000 in construction costs), Charleston Area Medical Center in Charleston, St. Mary's Medical Center in Huntington, Paul Blazer High School in Ashland, Marshall University Student Housing in Huntington, Pleasant Hill Elementary School renovations in Calhoun County, Boyd County Judicial Center in Kentucky, lightning protection and grounding study at Fenway Park in Boston, Ritchie County Middle/High School, Elkins Middle School HVAC and electrical renovations, West Virginia Department of Transportation Burnsville Rest Area and domestic water pumping station, Tucker County Board Office Boiler Retrofit, Kanawha County Commission Judicial Annex Renovations, new Iaeger/Panther Elementary School, and West Virginia Division of Culture and History Fire Alarm/Sprinkler upgrades.

Through the years, Jim has researched and implemented into practice International Building Codes, NFPA Codes, National Electrical Codes, Life Safety Codes, IES standards, AIA Guidelines for Design and Construction, and the evolving ADA standards.

Professional Affiliations

Member of the National Fire Protection Association (NFPA)
Member of the Health Care Section of the NFPA
Member of the Illuminating Engineering Society (IES)
Past member of the Institute of Electrical Engineers (IEE)
Past member of the American Society of Plumbing Engineers (ASPE)



James W. Lowry, E.I.

**HVAC, Plumbing and
Fire Protection Designer**

Qualifications

James has over approximately 6 years of experience and has completed extensive HVAC design training at Carrier Training Center, Syracuse, NY and hydronic design/applications at the B&G training center, Chicago, IL. He also had special courses in Finite Element Analysis, Vibration Analysis, Fluid Power, Automatic Controls, Industrial Instrumentation, and Programmable Logic Controllers (PLCs).

James' experience includes the design for mechanical engineering, heating, ventilating, air conditioning, plumbing, electrical and lighting for educational, health care and commercial facilities. He specializes in HVAC, fire protection & plumbing design and commissioning. He researches and applies International Building Codes, NFPA, ASHRAE standards and the AIA Guidelines for Design and Construction of Health Care Facilities in design.

Some of James' educational project experience includes Concord University Technology Center, Davis Thomas Elementary/Middle School, Elkins Middle School HVAC/electrical renovations, Eastern Greenbrier Middle School addition, Glade Elementary/Middle School renovations, Greenbrier West High School additions/renovations, Iaeger/Panther Elementary School, James Monroe High School HVAC renovations, Man/Central Elementary addition, Park Middle School HVAC renovations, Pleasant Hill Elementary renovations, Smithville Elementary School additions/renovations, Ritchie County Middle/High School HVAC/plumbing renovations, Tucker County High/Career Center HVAC renovations, new McDowell County Southside K-8 School, and Woodrow Wilson High School HVAC/electrical renovations.

James' health care experience includes Charleston Area Medical Center (Wound Center), Charleston Surgical Center, VA – Huntington steam replacement, VA – Huntington water line replacement, and VA – Huntington CT Scan renovations.

His commercial experience includes Commissioning West Virginia Air National Guard's \$43 million maintenance and fuel cell hangars, Cass Railroad Clubhouse renovations, Burnsville Rest Areas, Morgantown Welcome Center, I-70 Welcome Center, DOT Rest Area prototype, DOT Welcome Center prototype, 4-H Camp Muffly Training/Dining facility, Kanawha County Judicial Annex, Jackson County Courthouse Annex, Mason County Courthouse, Pendleton County Courthouse additions/renovations, Tucker County Courthouse renovations, Point Pleasant River Museum addition, Hardy County Daycare Center, West Union Bank Award Winning new facility, multiple branch banking facilities, Webster County Multi-tenant build-out, West Virginia Capitol Complex Performance Contracting HVAC retrofits and Master Planning for Security/Fire Alarm/Life Safety systems.

Education

BS in Mechanical Engineering from West Virginia University Institute of Technology, Montgomery, WV in 2004

Registrations

E.I. West Virginia No. 8376

West Virginia State Board of Registration for Professional Engineers

Professional Affiliations

American Society of Mechanical Engineers

Construction Management



Following completion of the project design, some firms hand off the responsibility of construction oversight to field personnel. At Chapman Technical Group, the Project Architect remains the key person overseeing the project construction and is involved in everything from periodic construction site visits to running progress meetings. Additional design professionals such as mechanical engineers, structural engineers and even the interior designers, are involved in overseeing their particular scope of the project.

Specifically, Chapman Technical Group will provide the following services during construction:

Project Management

- Run and Document Progress Meetings

- Review and Process Contractor Submittals

- Review and Process Contractor Pay Applications

- Respond to Requests for Information from the Contractor

- Conduct periodic site visits to assure compliance with Contract Documents

- Conduct substantial completion review

- Conduct final completion review

- Provide systems commissioning services, if desired

If full-time, on-site representation is required, Chapman Technical Group can provide personnel to meet that need.

With regard to ensuring compliance with the construction schedule, Chapman Technical Group can suggest intermediate deadlines and review the Contractor's progress and advise the Owner of the Contractor's likelihood of meeting its schedule. Ultimately the decision to employ tools to encourage timely project completion, that is, liquidated damages and involvement of the bonding company, necessarily require Owner involvement.

Recognizing that no project is perfect and that unexpected issues will arise during construction, Chapman Technical Group strives to create a cooperative environment between the architect, contractor and owner. How these issues are handled, in large part can determine the success or failure of a project. Chapman Technical Group believes that by fostering a cooperative team spirit, the construction phase of the project can be completed to everyone's satisfaction.

References



1. Honorable Dick Callaway
City of St. Albans
Post Office Box 1488
St. Albans, WV 25177
(304) 727-2971
2. Mr. Bradley S. Leslie, P.E.
Assistant Chief
WV Division of Natural Resources
Parks & Recreation Section
324 4th Avenue
South Charleston, WV 25303
(304) 558-2764
3. Mr. William "Willie" Parker
County Administrator
Upshur County Commission
38 Main Street, Room 302
Buckhannon, WV 26201
(304) 472-0535
4. Mr. Dave Weekley
Director of Services
Ritchie County Schools
134 South Penn Avenue
Harrisville, WV 26362
(304) 643- 2991 ext. 223



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

Request for Quotation

RFQ NUMBER

COR61515

PAGE

1

ADDRESS CORRESPONDENCE TO ATTENTION OF:

TARA LYLE
304-558-2544

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ANTHONY CORRECTIONAL CENTER
BOX N-1, HC 70

ROUTE 92 (NEOLA)
WHITE SULPHUR SPRINGS, WV
24986 304-536-4151

DATE PRINTED	TERMS OF SALE	SHIP VIA	F.O.B.	FREIGHT TERMS		
04/04/2012						
BID OPENING DATE: 05/17/2012		BID OPENING TIME 01:30PM				
LINE	QUANTITY	UOP	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
0001	1	JB		906-00-00-001		
ARCHITECT/ENGINEERING SERVICES, PROFESSIONAL						
EXPRESSION OF INTEREST (EOI)						
THE WEST VIRGINIA PURCHASING DIVISION FOR THE AGENCY, WV DIVISION OF CORRECTIONS, IS SOLICITING EXPRESSIONS OF INTEREST FOR PROFESSIONAL ARCHITECTURAL ENGINEERING DESIGN SERVICES TO CORRECT ISSUES OF WATER LEAKING INSIDE OF THE BUILDING AT THE ANTHONY CORRECTIONAL CENTER LOCATED IN WHITE SULPHUR SPRINGS, WV, PER THE ATTACHED BID REQUIREMENTS AND SPECIFICATIONS.						
TECHNICAL QUESTIONS MUST BE SUBMITTED IN WRITING TO TARA LYLE VIA MAIL AT THE ADDRESS SHOWN IN THE BODY OF THIS EOI, VIA FAX AT 304-558-4115, OR VIA EMAIL AT TARA.L.LYLE@WV.GOV.						
DEADLINE FOR ALL TECHNICAL QUESTIONS IS 05/01/2012 AT THE CLOSE OF BUSINESS. ANY TECHNICAL QUESTIONS RECEIVED WILL BE ANSWERED BY FORMAL ADDENDUM ISSUED BY THE PURCHASING DIVISION AFTER THE DEADLINE HAS LAPSED.						
MANDATORY PRE-BID						
A MANDATORY PRE-BID WILL BE HELD ON 04/24/2012 AT 10:00 AM AT THE ANTHONY CORRECTIONAL CENTER LOCATED IN WHITE SULPHUR SPRINGS, WV. ALL INTERESTED PARTIES ARE REQUIRED TO ATTEND THIS MEETING. FAILURE TO ATTEND THE MANDATORY PRE-BID SHALL RESULT IN DISQUALIFICATION OF THE BID. NO ONE PERSON MAY						
SEE REVERSE SIDE FOR TERMS AND CONDITIONS						
SIGNATURE		TELEPHONE		DATE		
TITLE		FEIN		ADDRESS CHANGES TO BE NOTED ABOVE		

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



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01:30PM

LINE	QUANTITY	UOP	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
REPRESENT MORE THAN ONE BIDDER.						
AN ATTENDANCE SHEET WILL BE MADE AVAILABLE FOR ALL POTENTIAL BIDDERS TO COMPLETE. THIS WILL SERVE AS THE OFFICIAL DOCUMENT VERIFYING ATTENDANCE AT THE MANDATORY PRE-BID. FAILURE TO PROVIDE YOUR COMPANY AND REPRESENTATIVE NAME ON THE ATTENDANCE SHEET WILL RESULT IN DISQUALIFICATION OF THE BID. THE STATE WILL NOT ACCEPT ANY OTHER DOCUMENTATION TO VERIFY ATTENDANCE. THE BIDDER IS RESPONSIBLE FOR ENSURING THEY HAVE COMPLETED THE INFORMATION REQUIRED ON THE ATTENDANCE SHEET. THE PURCHASING DIVISION AND THE STATE AGENCY WILL NOT ASSUME ANY RESPONSIBILITY FOR A BIDDER-S FAILURE TO COMPLETE THE PRE-BID ATTENDANCE SHEET. IN ADDITION, WE REQUEST THAT ALL POTENTIAL BIDDERS INCLUDE THEIR E-MAIL ADDRESS AND FAX NUMBER.						
ALL POTENTIAL BIDDERS ARE REQUESTED TO ARRIVE PRIOR TO THE STARTING TIME FOR THE PRE-BID. BIDDERS WHO ARRIVE LATE, BUT PRIOR TO THE DISMISSAL OF THE TECHNICAL PORTION OF THE PRE-BID WILL BE PERMITTED TO SIGN IN. BIDDERS WHO ARRIVE AFTER CONCLUSION OF THE TECHNICAL PORTION OF THE PRE-BID, BUT DURING ANY SUBSEQUENT PART OF THE PRE-BID WILL NOT BE PERMITTED TO SIGN THE ATTENDANCE SHEET.						
CANCELLATION: THE DIRECTOR OF PURCHASING RESERVES THE RIGHT TO CANCEL THIS CONTRACT IMMEDIATELY UPON WRITTEN NOTICE TO THE VENDOR IF THE COMMODITIES AND/OR SERVICES SUPPLIED ARE OF AN INFERIOR QUALITY OR DO NOT CONFORM TO THE SPECIFICATIONS OF THE BID AND CONTRACT HEREIN.						
BANKRUPTCY: IN THE EVENT THE VENDOR/CONTRACTOR FILES FOR BANKRUPTCY PROTECTION, THE STATE MAY DEEM THE CONTRACT NULL AND VOID, AND TERMINATE SUCH CONTRACT WITHOUT FURTHER ORDER.						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

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ANY INDIVIDUAL SIGNING THIS BID IS CERTIFYING THAT: (1) HE OR SHE IS AUTHORIZED BY THE BIDDER TO EXECUTE THE BID OR ANY DOCUMENTS RELATED THERE TO ON BEHALF OF THE BIDDER, (2) THAT HE OR SHE IS AUTHORIZED TO BIND THE BIDDER IN A CONTRACTUAL RELATIONSHIP, AND (3) THAT THE BIDDER HAS PROPERLY REGISTERED WITH ANY STATE AGENCIES THAT MAY REQUIRE REGISTRATION.						
NOTICE						
A SIGNED BID MUST BE SUBMITTED TO:						
DEPARTMENT OF ADMINISTRATION PURCHASING DIVISION BUILDING 15 2019 WASHINGTON STREET, EAST CHARLESTON, WV 25305-0130						
THE BID SHOULD CONTAIN THIS INFORMATION ON THE FACE OF THE ENVELOPE OR THE BID MAY NOT BE CONSIDERED:						
SEALED BID						
BUYER:-----TL/32-----						
RFQ. NO.:-----COR61515-----						
BID OPENING DATE:-----05/17/2012-----						
BID OPENING TIME:-----1:30 PM-----						

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PLEASE PROVIDE A FAX NUMBER IN CASE IT IS NECESSARY TO CONTACT YOU REGARDING YOUR BID: ----- 304-727-5580 -----						
CONTACT PERSON (PLEASE PRINT CLEARLY): ----- Joseph E. Bird, Vice President -----						
***** THIS IS THE END OF RFQ COR61515 ***** TOTAL: _____						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

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TITLE	FEIN	ADDRESS CHANGES TO BE NOTED ABOVE

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

Request for Quotation

RFQ NUMBER
COR61515

PAGE
1

ADDRESS CORRESPONDENCE TO ATTENTION OF:
TARA LYLE
304-558-2544

RFQ COPY
TYPE NAME/ADDRESS HERE

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ANTHONY CORRECTIONAL CENTER
BOX N-1, HC 70
ROUTE 92 (NEOLA)
WHITE SULPHUR SPRINGS, WV
24986 304-536-4151

DATE PRINTED	TERMS OF SALE	SHIP VIA	F.O.B.	FREIGHT TERMS
05/14/2012				

BID OPENING DATE: 05/24/2012 BID OPENING TIME 01:30PM

LINE	QUANTITY	UOP	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
ADDENDUM NO. 1						
1. QUESTIONS AND ANSWERS ARE ATTACHED.						
2. TO MOVE THE BID OPENING FROM 05/17/2012						
TO 05/24/2012.						
3. PRE-BID SIGN IN SHEETS ATTACHED.						
4. ADDENDUM ACKNOWLEDGEMENT IS ATTACHED. THIS						
DOCUMENT SHOULD BE SIGNED AND RETURNED WITH YOUR						
BID. FAILURE TO SIGN AND RETURN MAY RESULT IN						
DISQUALIFICATION OF YOUR BID.						
ADDENDUM NO. 1						
0001	1	JB		906-00-00-001		
ARCHITECT/ENGINEERING SERVICES, PROFESSIONAL						
***** THIS IS THE END OF RFQ COR61515 ***** TOTAL:						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE	TELEPHONE	DATE
TITLE	FEIN	ADDRESS CHANGES TO BE NOTED ABOVE

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

**COR61515
ADDENDUM NO. 1**

QUESTIONS:

Q1: Will the State provide copies of the drawings of the Anthony Correctional Center to the Architects prior to the interviews so we may make appropriate plans of action?

A1: Drawings were provided and viewed during the mandatory pre-bid meeting.

CLARIFICATIONS:

C1: Mandatory pre-bid sign in sheets attached.

C2: The bid opening has moved from 05/17/2012 to 05/24/2012.

COR61515

EOI Pre-Bid Meeting Sign-In Sheet

SIGN IN SHEET

Page 1 of 2

Request for Proposal No.

PLEASE PRINT

Date: April 24, 2012

* PLEASE BE SURE TO PRINT LEGIBLY - IF POSSIBLE, LEAVE A BUSINESS CARD

FIRM & REPRESENTATIVE NAME	MAILING ADDRESS	TELEPHONE & FAX NUMBERS
Company: <u>Silling Associates</u>	<u>405 Capitol Street</u>	PHONE <u>(304) 346-0565</u>
Rep: <u>Allyson Fowler</u>	<u>Charleston WV 25301</u>	TOLL FREE
Email Address: <u>afowler@silling.com</u>		FAX
Company: <u>CRABTREE, ROHRBAUGH & ASSOCIATES</u>	<u>250 W. MAIN ST, SUITE 200</u>	PHONE <u>(434) 975-7262</u>
Rep: <u>ROD HOTINGER, ARCHITECT</u>	<u>CHARLOTTESVILLE, VA. 22902</u>	TOLL FREE
Email Address: <u>RHOTINGER@CRA-ARCHITECTS.COM</u>		FAX <u>(434) 975-7263</u>
Company: <u>MCKINLEY & ASSOCIATES</u>	<u>1116 SMITH ST, SUITE 406</u>	PHONE <u>304.546.5777</u>
Rep: <u>TOMMY YOUNG</u>	<u>CHARLESTON, WV 25301</u>	TOLL FREE
Email Address: <u>tyoung@mckinleyassoc.com</u>		FAX <u>304.340.4269</u>
Company: <u>Engineering + Testing 2000 Inc</u>	<u>Po Box 1149</u>	PHONE <u>304 645 4056</u>
Rep: <u>Amanda Brewer</u>	<u>Lewisburg WV 24901</u>	TOLL FREE
Email Address: <u>abrewer_et2000@hotmail.com</u>		FAX <u>304 645-4489</u>
Company: <u>Engineering + Testing 2000 Inc</u>	<u>Po Box 1149</u>	PHONE <u>304 645 4056</u>
Rep: <u>Crystal Dale</u>	<u>Lewisburg WV 24901</u>	TOLL FREE
Email Address: <u>Crystal-et2000@yahoo.com</u>		FAX <u>304 645-4489</u>

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COR61515
EOI Pre-Bid Meeting Sign-In Sheet

SIGN IN SHEET

Request for Proposal No.

PLEASE PRINT

Page 2 of 2
Date: April 24, 2012

* PLEASE BE SURE TO PRINT LEGIBLY - IF POSSIBLE, LEAVE A BUSINESS CARD

FIRM & REPRESENTATIVE NAME	MAILING ADDRESS	TELEPHONE & FAX NUMBERS
Company: <u>CHAPMAN TECHNICAL GROUP</u>	<u>200 SIXTH AVENUE</u>	PHONE <u>304-727-5501</u>
Rep: <u>PHIL WARNOCK</u>	<u>ST. ALBAUS, WV 25309</u>	TOLL FREE
Email Address: <u>PWARNOCK@CHAPTECH.COM</u>		FAX <u>304-727-5580</u>
Company: <u>WYK Architects</u>	<u>205 Washington Ave.</u>	PHONE <u>304-624-6326</u>
Rep: <u>Debbie Pye</u>	<u>Clarksburg, WV 26301</u>	TOLL FREE
Email Address: <u>debbie@wykarchitects.com</u>		FAX
Company: <u>PAUL D. MARSHALL ARCHITECTS</u>	<u>PO BOX 409</u>	PHONE <u>304 343-5310</u>
Rep: <u>BRENT SPRADLIN</u>	<u>CHARLESTON WV</u>	TOLL FREE <u>800 310 3470</u>
Email Address: <u>KBSPRAD@NETSCAPE.NET</u>	<u>25322</u>	FAX <u>304 343-5310</u>
Company: _____	_____	PHONE _____
Rep: _____	_____	TOLL FREE _____
Email Address: _____	_____	FAX _____
Company: _____	_____	PHONE _____
Rep: _____	_____	TOLL FREE _____
Email Address: _____	_____	FAX _____

EXHIBIT 10

REQUISITION NO.: COR61515

ADDENDUM ACKNOWLEDGEMENT

I HEREBY ACKNOWLEDGE RECEIPT OF THE FOLLOWING CHECKED
ADDENDUM(S) AND HAVE MADE THE NECESSARY REVISIONS TO MY
PROPOSAL, PLANS AND/OR SPECIFICATION, ETC.

ADDENDUM NO.'S:

NO. 1 ☒

NO. 2

NO. 3

NO. 4

NO. 5

I UNDERSTAND THAT FAILURE TO CONFIRM THE RECEIPT OF THE
ADDENDUM(S) MAY BE CAUSE FOR REJECTION OF BIDS. VENDOR
MUST CLEARLY UNDERSTAND THAT ANY VERBAL
REPRESENTATION MADE OR ASSUMED TO BE MADE DURING ANY
ORAL DISCUSSION HELD BETWEEN VENDOR'S REPRESENTATIVES
AND ANY STATE PERSONNEL IS NOT BINDING. ONLY THE
INFORMATION ISSUED IN WRITING AND ADDED TO THE
SPECIFICATIONS BY AN OFFICIAL ADDENDUM IS BINDING.


.....
SIGNATURE

Chapman Technical Group
.....
COMPANY

5/24/2012
.....
DATE

REV. 11/96