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EXPRESSION OF INTEREST

WYK Associates, Inc.

Architectural/ Engineering Services

for the

West Virginia Division of Corrections

at

St Marys (Colin Anderson) Correctional Center St. Marys, WV

Requested by:

Buyer:
 # 32 - John Abbott
Req#.: COR61430

Opening:
August 27, 2009
at 1:30 P.M.

WYK Associates, Inc.
P.O. Box 1484
205 Washington Avenue
Clarksburg, WV 26301
p. 304-624-6326
f. 304-623-9858
wyk@wykarchitects.com

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Letter of Interest
WYK Associates, Inc.

August 26, 2009

John Abbott
Purchasing Division
P.O. Box 50130
Charleston, WV 25305 –0130

Re: Expression of Interest #COR61430, St. Marys Correctional Center

Dear Mr. Abbott:

WYK Associates, Inc. and our project team wish to express our strong interest in providing complete A/E Services for this project. Our Project Team includes all of the professional disciplines required for the various types of projects identified in the Request for Expressions of Interest. We have provided A/E Services for a wide variety of projects of varying size, scope and building type. This work has included projects for housing of problem students, and a wide range of additions/renovation projects. We have provided services for projects with multiple contracts and fast track procurement of construction contracts.

The project team has experience with and can demonstrate the following project requirements and criteria:

$1,000,000 E&O Coverage
Workers Compensation Coverage
LEED AP

All Project Disciplines:

Soils and environmental concerns
Civil/Site Engineering
Landscape Architect
Architects
Structural Engineer
MEP Engineer

As you will see in the attached information, we have a well organized and experienced team and an understanding of the project scope and procurement process. We thank you for your consideration, and hope that we will have an opportunity to present our team and its expertise as a part of the interview process.

Sincerely,

WYK Associates, Inc.
William E. Yoke Jr., AIA
Principal in Charge

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Company Overview

WYK Associates, Inc.

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William E. Yoke, Jr., AIA – President

James B. Swiger, AIA – Vice President

Who We Are:

- WYK Associates, Inc. is a six-person architectural and planning firm serving a wide variety of commercial, religious, educational, civic and industrial clientele. Carleton Wood, Jr. was a third generation architect. His grandfather's firm had roots in North Central West Virginia dating back to the early twentieth century. William Yoke, Jr. and Howard Kelley partnered with Mr. Wood in 1974 to form WYK Associates, Inc. Our archives are filled with a century's worth of historic work.
- Mr. William Yoke, president of the firm, assumed that role in 1996 upon Mr. Wood's retirement. Mr. Kelley had previously retired in the early 1990's.
- Mr. James Swiger, joined the firm in 2005 and became a principal and vice president in 2008.

Our Project Philosophy:

- Through collaboration with engineering consultants we address the needs and schedule requirements of each client.
- We provide thorough planning in all areas of each project to fit the individual requirements for a positive impact on both the natural and built environments. Energy conservation and product safety are very important concerns.
- Our client's requirements for quality, service and value are the driving force behind each decision. Open communication and teamwork are our guide words for each project.

Project Management:

- We carefully evaluate the client's program, design concerns, budget, funding sources, and other available data to assure a clear understanding of each project.
- We incorporate input from our client and consultants to establish the budget and schedule. These facets are updated during each stage of project development to insure our client's parameters are met.
- WYK's principals engage and manage the entire project team, from concept through occupancy. WYK Associates, Inc. has an outstanding reputation for providing construction administration services along with maintaining an excellent rapport with contractors.

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Project Team

St. Marys Correctional Center

WYK associates, inc architecture planning

Project Team
St. Marys Correctional Center

ARCHITECTURE

WYK Associates, Inc.
205 Washington Avenue
P.O. Box 1484
Clarksburg, WV 26301
(304) 624-6326
(304) 623-9858 fax
bill@wykarchitects.com

CIVIL / GEOTECHNICAL ENGINEER

CTL Engineering of West Virginia, Inc.
733 Fairmont Rd.
Morgantown, WV 26501
(304) 292-1135
(304) 296-9302
pgallagher@ctleng.com

STRUCTURAL ENGINEER

Allegheny Design Services, Inc.
102 Leeway Street
Morgantown, WV 26505
(304) 599-0771
(304) 599-0772 fax
dave@alleghenydesign.com

HVAC / ELECTRICAL / PLUMBING ENGINEER

ZDS Design / Consulting Services
91 Smiley Drive
St. Albans, WV 25177
(304) 755-0075
(304) 755-0076 fax
ZDSDesign@aol.com

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Team Organization Chart
St. Marys Correctional Center

Project Shepherd
St Marys Correctional Facility

Principal In-Charge
William E. Yoke, Jr., AIA

WYK Associates Inc.

Consultants

Design / Construction Administration
James B. Swiger, AIA, LEED AP

Civil / Geotechnical Engineer
Patrick E. Gallagher, P.E.
CTL Engineering of WV, Inc.

Construction Documents
Stephen M. Kelley, Associate AIA
William R. Righter

Structural Engineer
David R. Simpson, P.E.
Allegheny Design Services

Construction Period Services
Staff as Required

HVAC / Electrical / Plumbing Engineer
Todd A. Zachwieja, P.E., LEED AP
ZDS Design / Consulting Services

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WYK's Design Approach to Your Project

St. Marys Correctional Center

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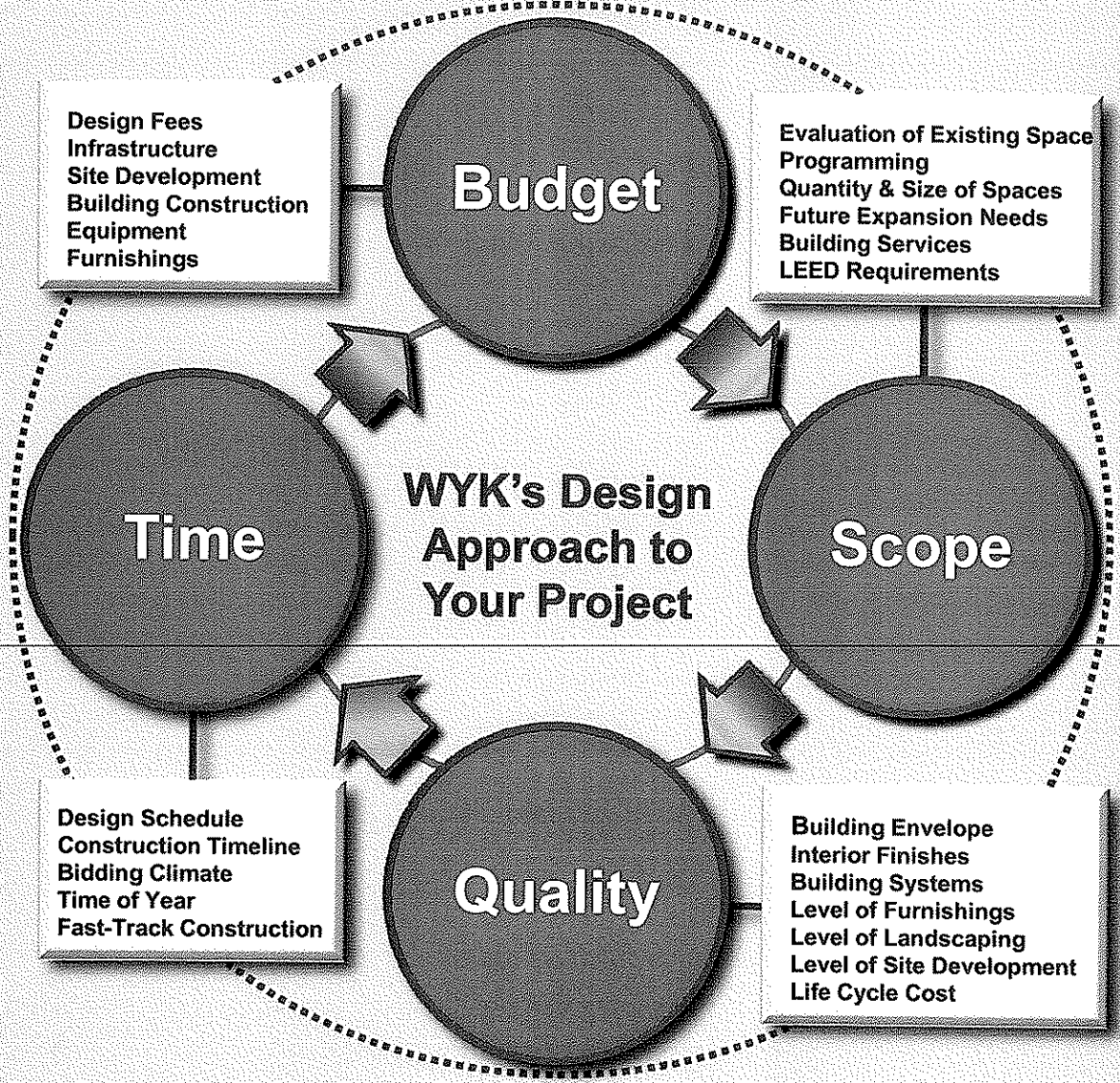
WYK's Design Approach to Your Project

St. Marys Correctional Center

Architecture is a Balancing Act.....



.....A Change In One Affects the Others

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Projects

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Harrison County Bank Branch Office

Nutter Fort, West Virginia

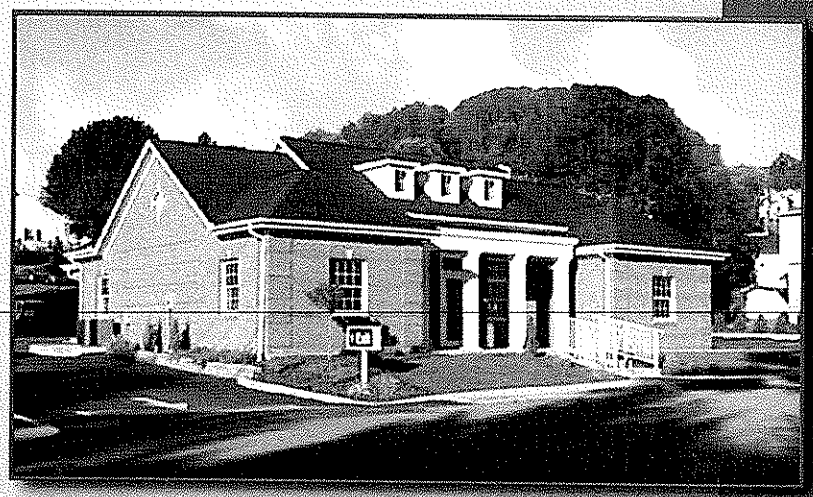
Harrison County Branch Bank

Size: 2,100 S.F.

The Harrison County Bank in Nutter Fort is the fourth branch bank of this well established local banking institution. Since it serves their image and needs so well, they are building the same plan in Clarksburg.

The character of the building housing this full-service branch bank emphasizes a familiar form composed of traditional elements and materials fused with contemporary technology and focus.

The scale of the building is appropriate to the town's main street. The vaulted interior lobby, intended to evoke the feel of a grand traditional bank lobby, is defined by its proportion and ample light from the building's three dormers. While the facility embraces imagery, it also houses complete state-of-the-art security and system's infrastructure.



❖This building is featured on the Belden Brick's website. www.beldenbrick.com

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Pressley Ridge Dormitories
Clarksburg, West Virginia

Pressley Ridge Dormitories for Kappa Sigma Pi of WV, Inc.

Size: 10,400 S.F.

These two housing facilities were designed for Kappa Sigma Pi of WV, who leases these properties to Pressley Ridge Schools of Northern West Virginia. One building houses male, and the other houses female, special needs students for long term residential care.

Each unit accommodates 10 to 12 students with 6 double bedrooms and a communal bathroom. A day room and training kitchen greet those entering the buildings. Additionally each unit provides office space and storage, three bedrooms and a separate bathroom for staff/counselors.

Located on this beautiful 107 acre family farm which was originally developed as a golf course and country club, Kappa Sigma Pi has served the residential needs of disadvantaged youth since 1921. These dormitories reflect the school's residential mission, remain sensitive to the existing context of the campus, yet insure the safety of all.

The design intent was to keep the buildings to a residential scale to help the residents have a "sense of home" in lieu of an institutional type structure. This was accomplished by the use of brick, pitched roofs, standard double hung windows and a covered porch placed at each end of the structures.

Girls' Dormitory

Boys' Dormitory

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West Virginia Air Center

North Central WV Airport - Bridgeport, West Virginia

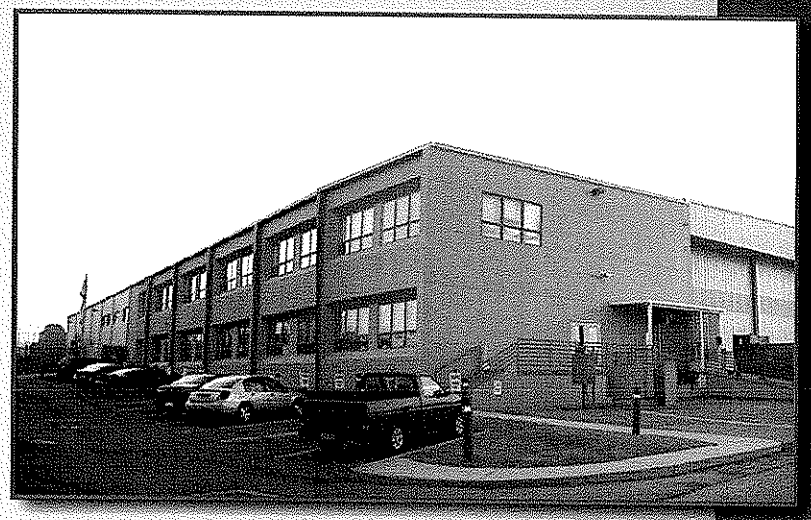
West Virginia Air Center

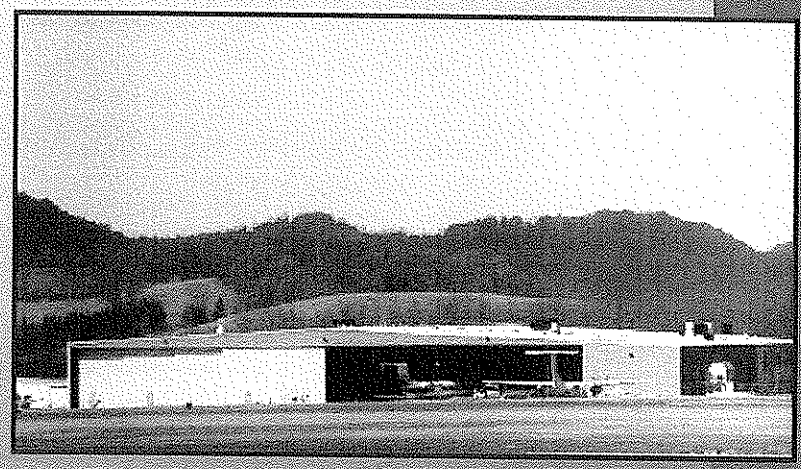
Size: 146,000 S.F.

The building designed for the West Virginia Air Center is now occupied by Bombardier Services America Corp. The facility houses a complete aircraft maintenance facility which services mid-sized airplanes for both private airlines and the military. The building features four large aircraft maintenance bays which can accommodate up to a dozen aircraft for all types of maintenance and retrofit services.

The center has shops to support all phases of aircraft maintenance including interior finishes, composite materials, avionics and electronics and machine tooling. One bay is specifically designed for the removal and application of paint, and the building has state of the art fire protection and hazardous material collection systems. The modern office and support facilities offer unique views of the maintenance bays, and afford all employees an opportunity to observe the extensive and detailed work as the airplanes are torn down and rebuilt.

The project was completed in just over 14 months using a fast track construction management approach. The construction manager, all contractors, the owners representatives and the design team worked very closely to assure that all project milestones were met, and that the facility met all the detailed criteria for certification as an aircraft maintenance facility.





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Broaddus Hospital
Philippi, West Virginia

Broaddus Hospital

Size: 45,000 S.F.

In 1999 this "new" Broaddus Hospital replaced a large outdated 1950's era facility, located on the Alderson-Broaddus College Campus. The facility was relocated to a more accessible and functional site off campus, providing a more visible profile, ample parking and more direct access from highways for emergency services.

The new hospital is a model for rural primary care facilities, providing a multi-function building compliant with current standards and is designed to address the modern needs of the smaller community.

The scale, massing and materials are considerate of the rural setting of the building and they enhance the residential nature of the long term care facility component, where providing familiar imagery is a key conceptual element.

The Services provided include:

Rural Health Clinic

Specialty Clinic

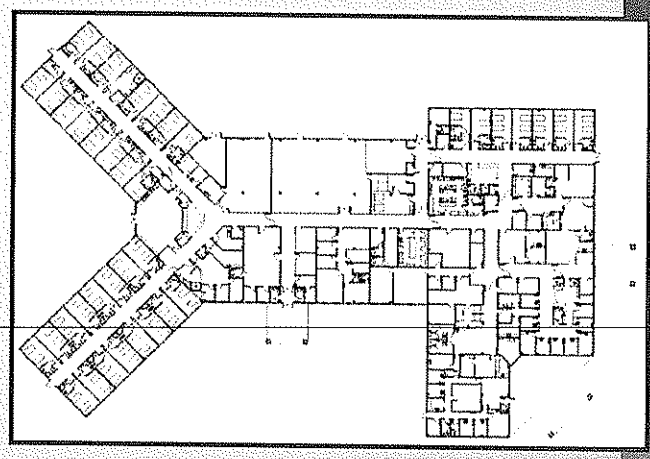
Emergency Room

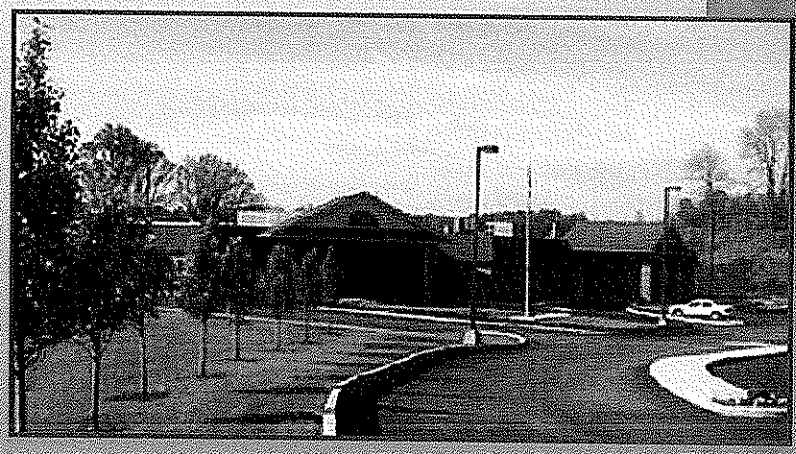
12 Acute Care Beds

60 Long Term Care Beds

Laboratory

Pharmacy





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West Union Bank Branch Office

Harrisville, West Virginia

West Union Bank Branch Office

Size: 3,500 S.F.

The Harrisville branch of the West Union Bank completed in 2002 is a state of the art, full service banking facility containing a welcoming lobby, office spaces, a conference room, staff support spaces, a biometric access controlled safety deposit box vault, multi-lane drive-thru, and a drive-up ATM.

The facility occupies a prominent location on Harrisville's Main Street, where the front facade provides the bank with a strong public presence. The front facade is defined by the strength of the entry element which is initiated by a pair of low walls and the covered portico. It continues into the building's lobby where a vaulted, up-lighted ceiling accentuates the central interior space.

The building's materials and scale are harmonious with its immediate context . The formal symmetry of the building's massing, and the brick masonry's colors develop a subtle dialogue with Ritchie County's historic courthouse, and are instrumental in shaping the character of this small town bank building.

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Harrison County Bank Branch Office

Bridgeport, West Virginia

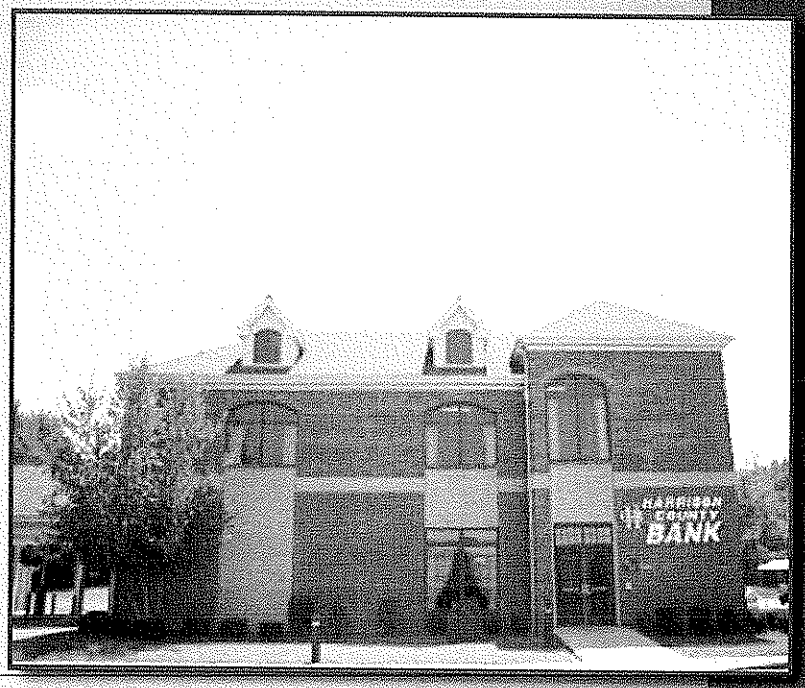
Harrison County Bank Branch

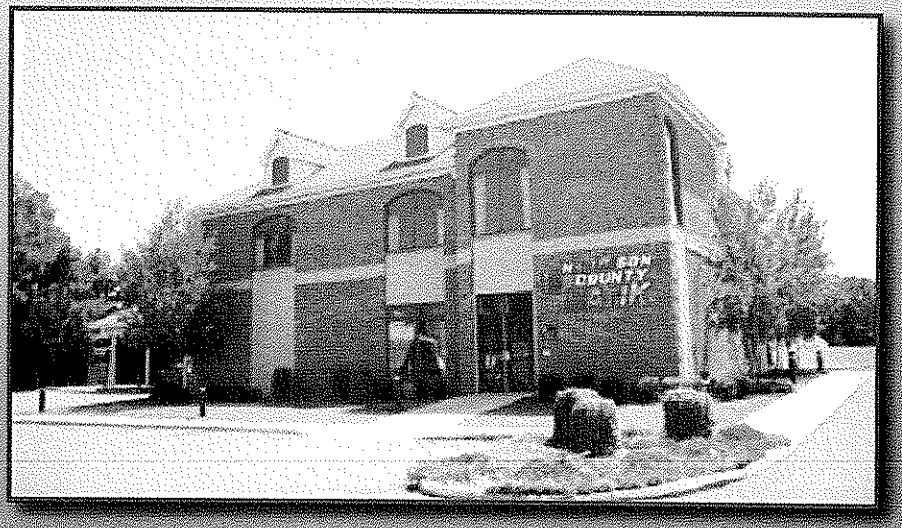
Size: 6,000 S.F.

Eager to tap the growing business opportunities of Bridgeport, WV and the surrounding area, the Harrison County Bank commissioned WYK Associates, Inc. to design a branch facility that took advantage of their prominent site, yet was appropriate to the scale of the adjacent residential neighborhood.

The first floor provides space for complete financial services including a drive-thru, ATM, and bank offices. The second floor is occupied by the Bank's lending offices and closing rooms with the remaining space available for lease.

The building is completely ADA accessible with an elevator surrounded by a wrap-around staircase.





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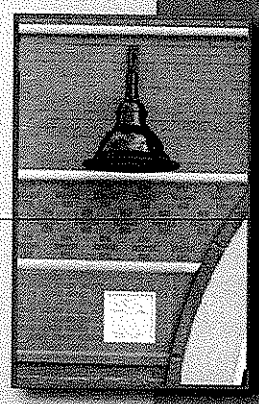
Christie-Cutlip Office Complex
Bridgeport, West Virginia

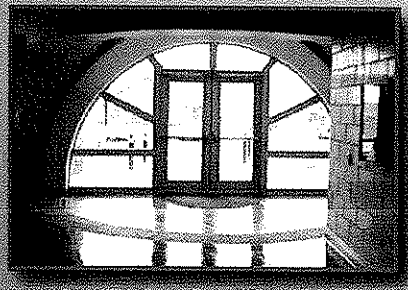
Christie-Cutlip Office Complex

Size: 12,000 S.F.

Jim Christie and David Cutlip entrusted WYK to design a new office building for their business in the new prestigious Charles Pointe Development directly off the I-79 Technology Corridor. Their location is highly visible from the Harrison-Marion Airport and the I-279 connector to the airport. The client wanted a distinguished and comfortable modern design that incorporates historic/traditional architectural features.

The welcoming arched entry of the structure is flanked by a distinguished soaring clock tower to give the building presence within its surroundings. The brick complex is wrapped with intricately detailed ribbon bands that reflect a common building practice of yesteryear. Dark tinted aluminum storefront windows provide views to the majestic surrounding hills and the arriving and departing aircraft. These energy efficient windows provide contrast to the brick textures while reducing heat gain and glare within the offices. The large overhangs provide protection to the façade from the elements as well as reduce direct heat gain in summer months.





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Central Fire Station
Clarksburg, West Virginia

Central Fire Station

Size: 9,700 S.F.

Completed:
- Upgrades: 2003
- Entry Enlargement: 1974
- Originally Built: 1927

Original Architect:
E. J. Wood & Son

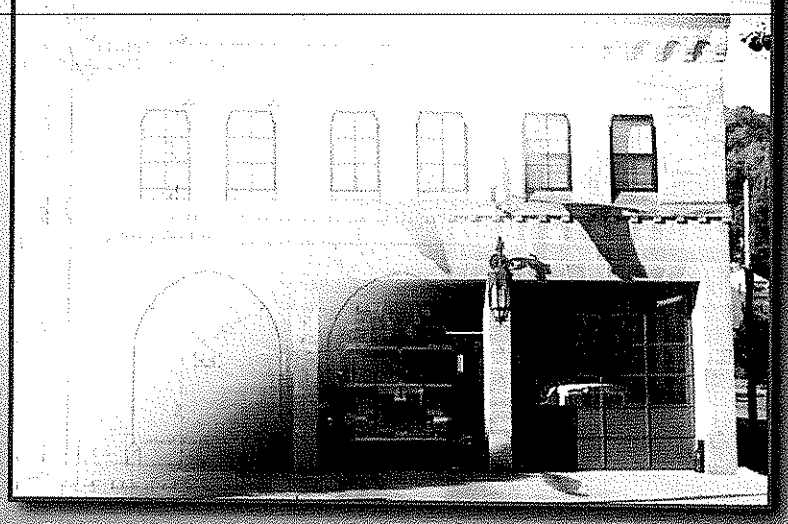
National Historic Register:
1982

The historic Central Fire Station has been renovated by WYK on two occasions and was originally designed by Carleton Wood's grandfather. In 1974 we modified the gothic arch entrances to the apparatus bays to accommodate larger equipment. This effort involved procuring stone from the original quarry to assure a good match with the original construction.

In 2003 we designed a renovation project which cleaned, secured and made minor structural repairs to the historic exterior. Interior work added a training room, exercise room and fire escape. The apparatus room floor was lowered to resolve drainage problems and assure access for even higher equipment.

The lower photograph here reflects the changes that were made to the apparatus entry by our firm in the mid 1970's to accommodate a variety of larger fire fighting vehicles.

1927 Original Drawing.....Withstanding the Test of Time.....Present Day



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Circleville School
Pendleton County, West Virginia

Circleville School

Size: 66,000 S.F.

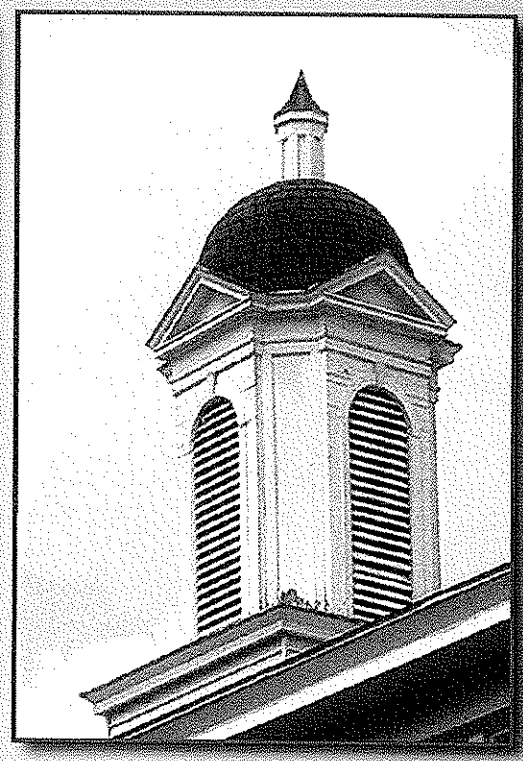
Working with a variety of funding sources, the non-profit CHS Preservation Inc. contacted WYK Associates to help them maintain this landmark in their community as a safe and attractive center for group activities. Within a tightly defined construction schedule, the building's life safety and electrical systems were upgraded to current code requirements. A new banquet kitchen was installed. And the exterior woodwork was repaired and repainted using the guidelines and assistance of the State Historic Preservation Office.

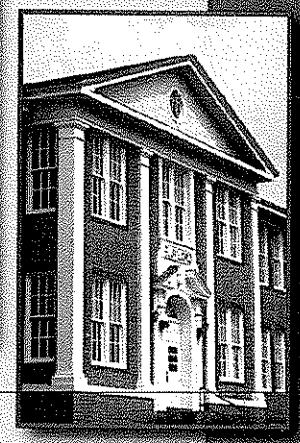
Funded by the Works Progress Administration, this Circleville School was constructed in 1938 to replicate a 1929 Georgian Revival-style building, which had been destroyed by fire. Its classically-derived main façade features four pilasters, a pediment, and a domed cupola. A broken pediment with urn-and-swag motif above a fanlight decorates the main double-door entrance. Enlarged wings and several rear additions expanded the 1938 facility from the 1929 plan. Circleville School was closed in 1998, as the County's schools were consolidated. Yet today Holmboe's building remains a focal point for this Pendleton County community.

Original Architect:

Earnest Christian Schebel Holmboe

National Register of Historic Places: April 4, 2000





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Bridgeport Public Safety Substation

Bridgeport, West Virginia

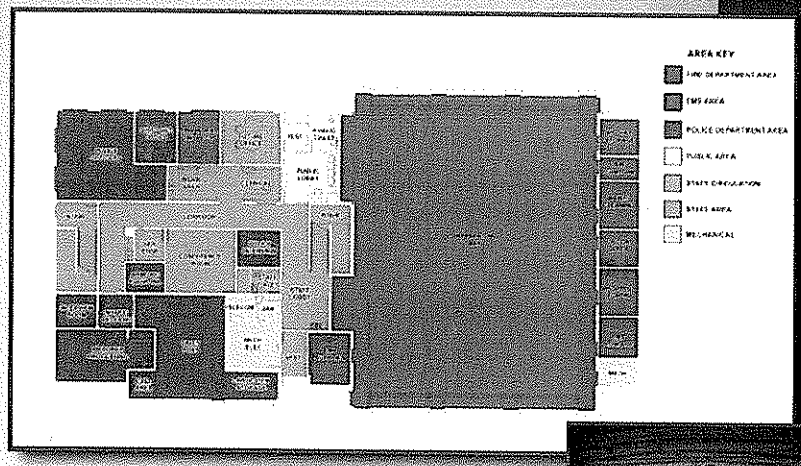
Bridgeport Public Safety Substation

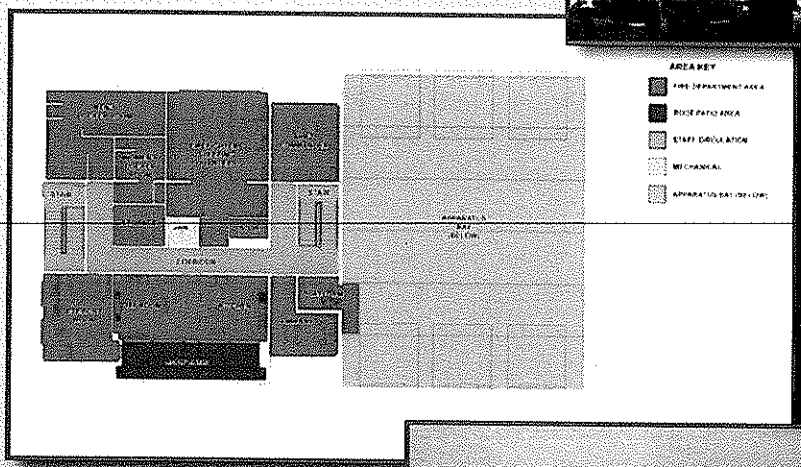
Size: 15,000 S.F.

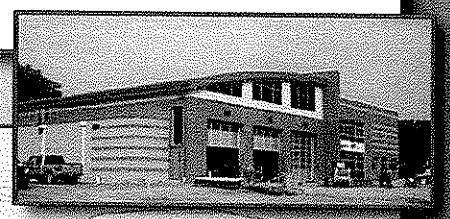
This facility is located directly adjacent to the new United Hospital Center at Jerry Dove Drive and strategically situated within a ½ mile radius of I-79 and the White Oaks and Charles Pointe Developments.

The building is a substation for the Fire and Police Departments of the City of Bridgeport. The structure is a combination of load bearing masonry and structural steel frame with a decorative brick veneer. The Apparatus Bay and supporting facilities are one story, slab-on-grade with an abundance of natural daylight. The administrative offices along with each of the department's support facilities are in a connected, two story steel frame structure.

Currently under construction, this facility is planned to open in the Fall of 2009. It will then be ready to serve the citizens and visitors of the City of Bridgeport.







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Peterson - Central Elementary School

Weston, West Virginia

Peterson-Central Elementary School

Size: 43,000 S.F.

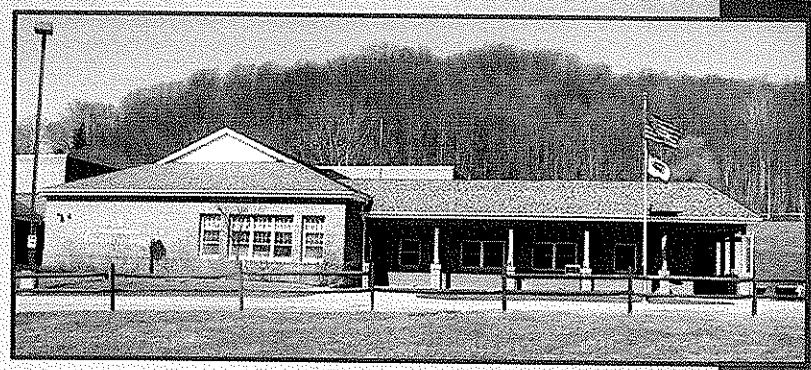
This Elementary School consolidated the greatly over crowded Peterson Elementary and Central Elementary Schools, housing students from Kindergarten through Fourth Grade.

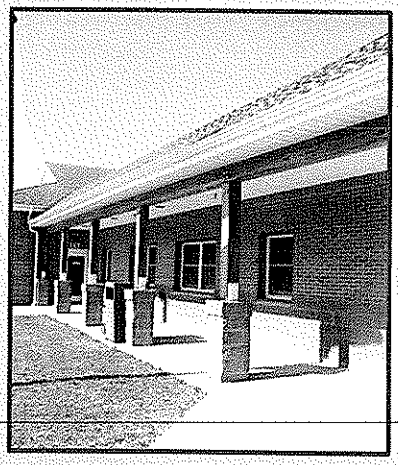
Primary design objectives include:

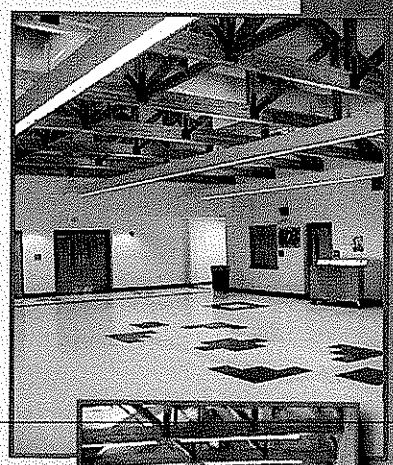
A. Design for Architectural Context regarding the established residential neighborhood.
B. Allow the facility to double as a community center.
C. Provide the capacity for expansion.

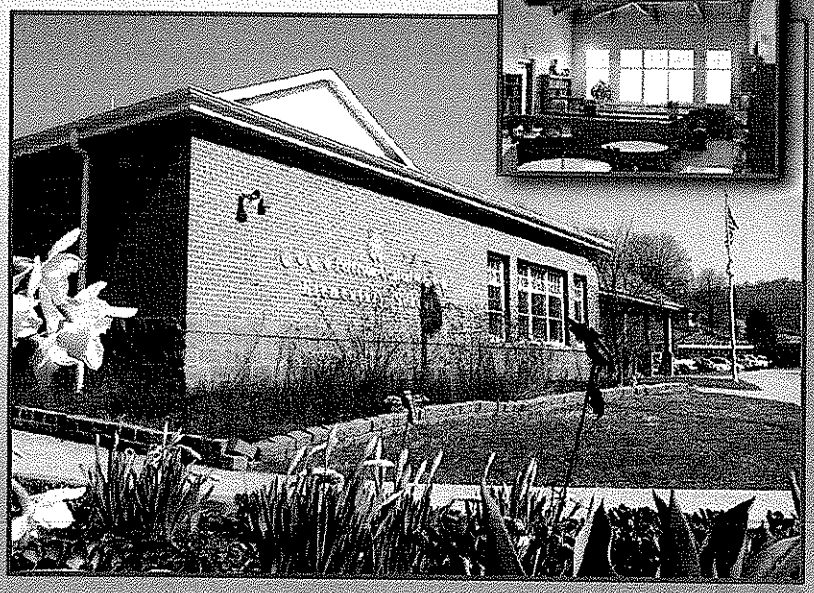
These goals are achieved through the implementation of brick masonry, hip roof elements and a scale for the primary facade consistent with the quaint existing neighborhood's contextual fabric. Compartmentalizing the building, allows the community public access to recreational areas as well as the media center, while maintaining security and privacy in the instructional spaces.

The interior environment employs a contemporary application of vibrant colors, exposed structural elements and naturally lighted spaces. The materials and their placement provide for ease of maintenance and can be readily updated as the educational and community needs adapt and expand.









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Recent Architectural Awards

American Institute of Architects – West Virginia

Information Manufacturing Corporation (I.M.C.)
Cowen, West Virginia

Size: 18,000 S.F.

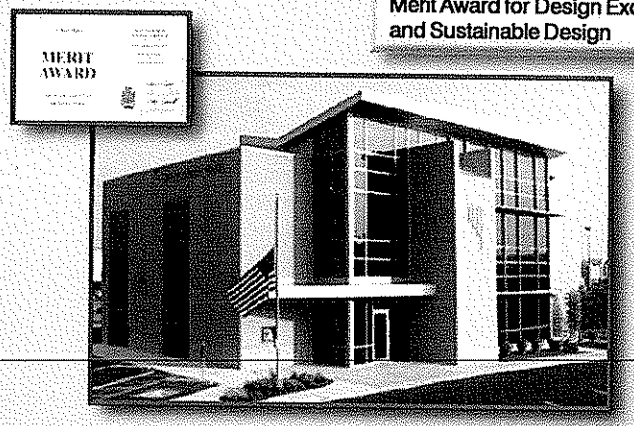
With Sponsorship from Senator Robert C. Byrd, the Webster County Development Authority commissioned this "state of the art" facility to house Information Manufacturing Corporation's regional operations. The important notion of sustainability is addressed through use of recycled steel, regional materials, and an innovative geothermal heat pump heating and cooling system.

2007 AIA-West Virginia -
Merit Award for Design Excellence
and Sustainable Design

West Union Bank- Newpointe
Clarksburg, West Virginia

Size: 9,000 S.F.

The design uses a combination of glass curtain wall with brick and monumental masonry units to present a very contemporary image. Because of the building orientation, the glass elevations require the use of solar glazing and a brise soliel system to reduce heat gain and glare in the offices.



2007 AIA West Virginia
Merit Award for Design Excellence

West Pike Street Parking Facility
Clarksburg, West Virginia

Size: 57,000 S.F.

The facility's design compliments all the adjacent properties, both historic and modern. A variety of outdoor activities are easily held here, enhancing the city's economy and livability. Designed by Associated Architectural Consultants, PLLC, which is a combination of Ralph Pedersen Architect & WYK Associates, Inc.

2008 AIA West Virginia –
Merit Award for Design Excellence

WYK

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Resumes

WYK Associates, Inc.

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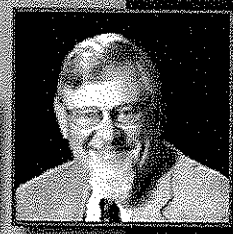
William E. Yoke, Jr., AIA, NCARB
President & Principal In-Charge



EMPLOYMENT SUMMARY

WYK Associates, Inc.	1978 - Present
WYK Architects	1974 - 1978
Whalen L. King, Architect	1973 - 1974
United States Navy	1969 - 1973
Giese Engineering	1968 - 1969

EDUCATION

Bachelor of Science – Pre-Architecture - 1968
Clemson University
Clemson, South Carolina

ARCHITECTURAL REGISTRATION

West Virginia	(Registration # 1566)
Virginia	(Registration #401-009314)
Maryland	(Registration #10172)
Pennsylvania	(Registration #RA-014502)
National Council of Architects	(Registration #23448)

PROFESSIONAL AFFILIATIONS

American Institute of Architects
National Council of Architectural Registration Boards (NCARB)
NCARB – Licensing Examination Committee
AIA-West Virginia – Two Term Past President
Past Chairman of Region II of NCARB
AIA-West Virginia Scholarship Committee
Fairmont State University – Architectural Technology Program – Advisory Committee
West Virginia Board of Architects – Three Term Past President (Current Member)

CIVIC AFFILIATIONS

Harrison County Chamber of Commerce – Past Board Member
Long Time Member of the Madrigal Singers of Clarksburg
Vice President of Civil War Roundtable – Local Chapter
Long Time Contributor to the United Way of Harrison County, Inc.

HONORS & AWARDS

2008 Chairman's Award– Harrison County Chamber of Commerce
2008 Merit Award in Architecture from AIA-West Virginia for the West Pike Street Parking Facility in Clarksburg, WV (Co-Design Architect)
2007 Merit Awards in Architecture from AIA-West Virginia for the following:
West Union Bank at Newpointe, Clarksburg, WV
Information Manufacturing Corporation in Cowen, WV

Selected Projects

Renovations to Central Fire Station
Clarksburg, WV

Broaddus Hospital
Philippi WV

Louis A. Johnson Veterans' Hospital – Various Renovations
Clarksburg, WV

Frank & Jane Gabor Folklife Center at FSU
Fairmont, WV

Davis Memorial Hospital Cancer Center
Elkins, WV

Bridgeport Public Safety Building
Bridgeport, WV

Renovations to Circleville School
Circleville, WV

WYK associates, inc
architecture
planning

James B. Swiger, AIA
NCARB, LEED AP
Vice President & Principal

EMPLOYMENT SUMMARY

WYK Associates, Inc.	2005 - Present
Blackwood Associates, Inc.	2000 - 2005
Gegner Architects	1997 - 2000
WYK Associates, Inc.	1996 - 1997

EDUCATION

Bachelor of Architecture -1996
University of Tennessee
Knoxville, Tennessee

ARCHITECTURAL REGISTRATION

West Virginia	(Registration # 3640)
National Council of Architects	(Registration #58982)

PROFESSIONAL AFFILIATIONS

American Institute of Architects
AIA-West Virginia – Director 2010 – Board of Directors
U.S. Green Building Council LEED Accredited Professional
National Council of Architectural Registration Boards
National Trust for Historic Preservation

Selected Projects

Addition to Dominion E&P Office
Jane Lew, WV

Christie-Cutlip Office Complex
Charles Pointe, Bridgeport, WV

West Pike Street Parking Facility
Clarksburg, WV

Bridgeport Public Safety Building
Bridgeport, WV

Salem Elementary School Nature Trail
Salem, WV

Stonewall Resort Lodge
Roanoke, WV

Bank of Gassaway
Flatwoods, WV

CIVIC AFFILIATIONS

United Way of Harrison County, Inc. – Board of Directors
Kiwanis Club of Clarksburg – 2008/2009 President
West Virginia Kiwanis District – Division 3 – Lieutenant Governor Elect, 2009/2010
Clarksburg Elks Lodge
Harrison County Chamber of Commerce - Education Committee
Salem Elementary School Nature/Fitness Trail – Project Manager
Salem International University Auxiliary
Upper Ten Mile Watershed Association – Board of Directors

HONORS & AWARDS

2009 Kiwanis Governor's Award for Outstanding Service in "Promoting Membership"
2008 Volunteer of the Year – Harrison County Chamber of Commerce
Selected "Generation Next: 40 Under 40" by the West Virginia State Journal in 2008
2008 Strathmore's Who's Who Worldwide Recipient
2008 Merit Award in Architecture from AIA-West Virginia for the
West Pike Street Parking Facility in Clarksburg, WV (Co-Design Architect)

WYK associates, inc
architecture
planning

Stephen M. Kelley, Associate AIA

Project Manager

EMPLOYMENT SUMMARY

WYK Associates, Inc.	2007 - Present
Blackwood Associates, Inc.	2002 - 2007
Kurtz Construction	1999 - 2001
Philadelphia University	1996 - 2000
Athletic Department	
Eagle Lodge	
Golf and Conference Center	1997

EDUCATION

Bachelor of Architecture - 2000
Philadelphia University
Philadelphia, Pennsylvania

PROFESSIONAL AFFILIATIONS

American Institute of Architects
AIA-West Virginia – Associate Member

CIVIC AFFILIATIONS

Salem Area Chamber of Commerce – Board of Directors
Harrison County Development Authority – Board of Directors
Fort New Salem Foundation – Board of Directors
VFW Post 9151- Trustee & Lifetime Member

HONORS & AWARDS

Salem Area Chamber of Commerce 2006 Member of the Year
AIA-West Virginia Student Design Competition 1995 - Second Place
U.S Army Awards:

- Army Achievement Medal
- Reserve Component Achievement Medal
- National Defense Service Medal
- Global War of Terrorism Expeditionary Metal
- Armed Forces Reserve Medal
- Army Service Ribbon
- Reserve Components Overseas Training Ribbon

Selected Projects

Harrison County Schools Entries & Hardware Replacement
Clarksburg, WV

United Hospital Center's CCCC Building Entry Replacement
Clarksburg, WV

Bank of Gassaway
Flatwoods, WV

Renovation to Johnston School
Industrial Home of Youth
Salem, WV

Multi-Tenant Building for the Braxton County Development Authority
Flatwoods, WV

New Veterans' Nursing Home Facility at Louis A. Johnson Veterans Hospital
Clarksburg, WV

WYK

associates, inc

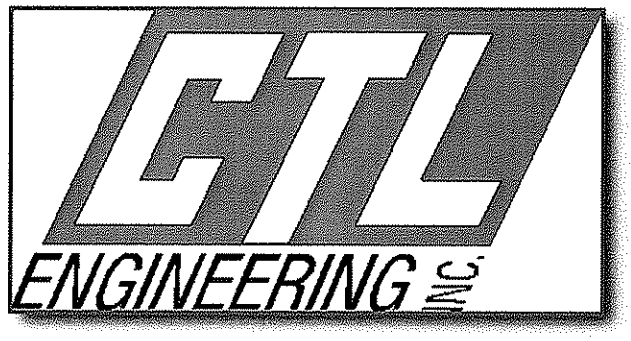
architecture

planning

Consultants

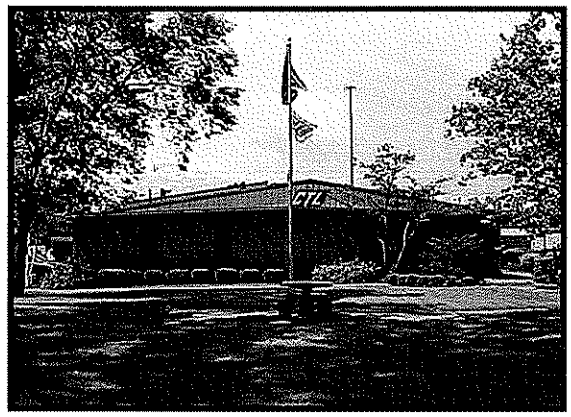
WYK Associates, Inc.

CTL Engineering of West Virginia, Inc.



CTL Engineering Inc.

An Employee Owned Company



CTL Engineering, Inc. (CTL Engineering) is a full service consulting engineering, testing, inspection, and analytical services company. CTL Engineering, formerly known as Columbus Testing Laboratory, was established in 1927 as an independent engineering testing laboratory serving the local community. During the early years, our expertise focused mainly on soils, foundation engineering, and construction testing and inspection services.

***Business First Journal* regularly lists CTL Engineering, Inc. as one of the top engineering firms in terms of employees and revenues generated. *The Engineering News-Record* ranked CTL Engineering Inc. among top 500 architectural and engineering firms in the nation. CTL Engineering maintains a staff of over 200 employees, including registered engineers, architects, chemists, environmental scientists, geologists, hydrologists, wetland scientists and technicians.**

Today, CTL Engineering regularly performs services throughout all of West Virginia and in a majority of Mid-Atlantic and Midwestern states.

YEARS of SERVICE

CTL Engineering Inc. has been in business since 1927 and had been providing quality consulting engineering services for over 80 years. CTL Engineering of West Virginia will be celebrating it's 28th anniversary this year.

CTL Engineering Inc. provides ***consulting engineering services, testing and inspection services and offers a full-services analytical laboratory in-house.*** CTL also provides Geotechnical Engineering, Environmental Engineering Civil Engineering, Mining Engineering, Construction Inspection and Testing, Nondestructive Testing and Inspection, Forensic Science, Accident Re-Construction, Roofing Consulting, Product Testing, Laboratories, Analytical Chemistry, Materials Testing, and Metallurgy Services.

FOR MORE INFORMATION CONTACT US:

CTL Engineering of West Virginia, Inc.

733 Fairmont Road
Morgantown, WV 26501
(304) 292-1135 Phone
(304) 296-9302 Fax

510 C Street
S. Charleston, WV 25303
(304) 746-1140 Phone
(304) 746-1443 Fax

www.ctleng.com

Geotechnical Engineering

The Geotechnical Engineering Department at CTL Engineering routinely performs subsurface investigations, and soil and rock testing. We prepare engineering reports, make recommendations regarding foundation and construction techniques, and perform other pertinent geotechnical services, as dictated by a given project.

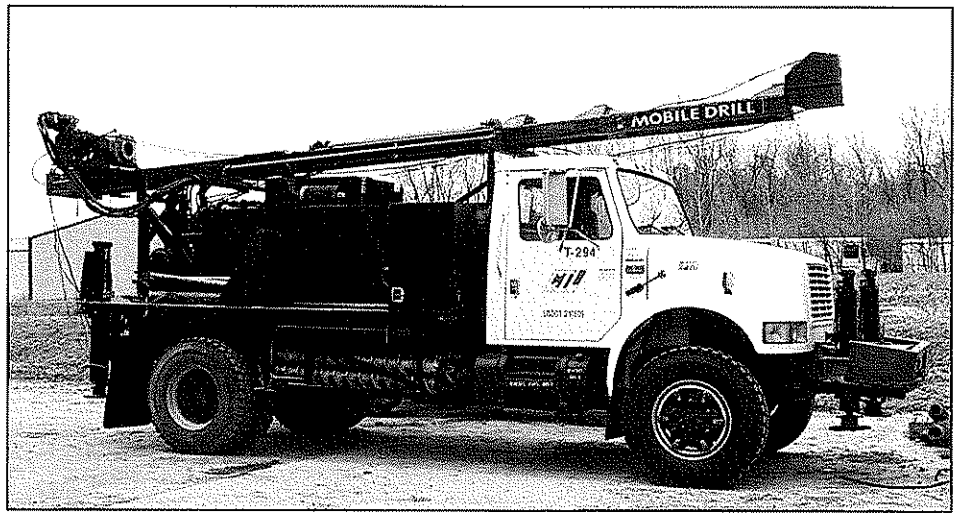
Drilling Services

CTL Engineering owns and operates its own fleet of drill rigs, the largest of which has a capacity to drill and take samples up to 300 feet deep. Our rigs are equipped with large diameter soil and rock core samplers, *in-situ* pressure meters and cone penetrometers. These rotary drilling rigs conduct standard split spoon sampling. Our drill rigs have pumps, wireline and standard coring equipment for proper and efficient execution of subsurface investigations. We can perform pressure meter tests and vane shear tests in the field, in addition to conducting and/or monitoring of well pumps tests.

Analytical Laboratory

Our Soils Laboratory has consolidometers, triaxial and direct sheer apparata, state-of-the-art permeability devices and normal soils classification equipment.

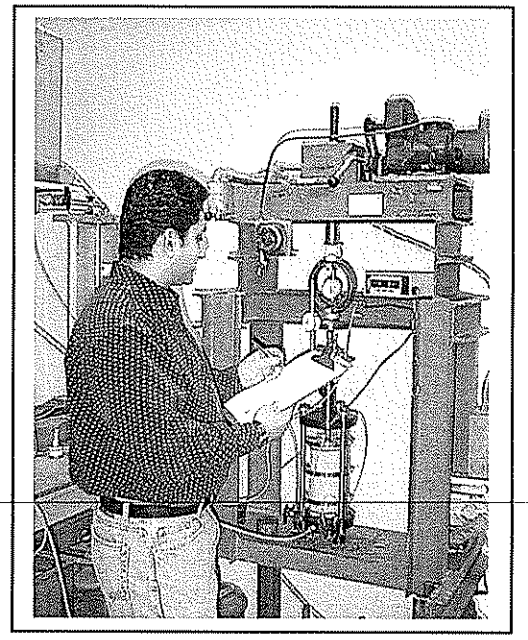
CTL Engineering provides a detailed analysis of the surface and subsurface composition and chemistry of the soils at the proposed site. For existing structures, we provide a foundation analysis. We also provide services for foundations under construction.



CTL owns and operates a fleet of ten (10) drill rigs

Service Listing

- **Complete Subsurface Exploration Study**
- **Foundation Analysis**
- **Pile, Pier and Caisson Analysis & Inspection**
- **Embankment & Earth Dam Analysis**
- **Slope Stability Analysis**
- **Settlement Analysis**
- **Pavement Design**
- **Rock & Mineral Testing**
- **Hydrogeologic Studies**
- **Field and Laboratory Testing of Soils**
- **Legal Testimony**



Soils engineers conduct soils tests in CTL's analytical laboratory

www.ctleng.com

In The Past 5 Years, CTL has performed Geotechnical Drilling and Subsurface Investigations for the following projects along with construction observation, surveying and environmental engineering:

Mon Co. BOE
Westwood Middle School
Suncrest Middle School
Bus Garage Monitoring Wells
University High School
Cheat Lake Middle & Elem Schools

Taylor Co. BOE
Anna Jarvis Cafeteria Addition
Anna Jarvis School

Jackson Schools, Jackson Ohio
Hancock Co. Schools, Weirton Elementary Schools
Ohio Co. Schools – Wheeling Park High School Addition
Philip Barbour High School Sewer Line Extension

West Virginia University
President's House / Addition
Student Recreational Facility
Wise Library Addition
Indoor Practice Facility
Stadium Upgrades
Athletic Department drilling
Concrete Investigation, Coliseum
Roof Survey, Coliseum
Health Sciences Site Planning
Knapp Hall
Sidewalk Collapse – Boreman Hall

WVU Hospitals
Dam Drilling
Clinic Expansion
Health Sciences Chiller Bldg Addition

WVU Planning & Design – Mountaineer Field – Puskar Bldg

Other related projects we have provided services for include:

Mon Co. Schools Foundation – Anker Fields
Christian Schools Inc. – Trinity School
Wheeling Park High School Addition
Garrett Community College
Frostburg State University
Central Ordinance Elementary School, Charleston
Wyoming Co. BOE – Westside High School
Riegle (West) Elementary School, Jackson, Ohio

PROJECT EXPERIENCE PROFILE

Project:
Westwood Middle School

Owner:
Monongalia County Board of Education

Location:
Morgantown, WV

PROJECT FEATURES

Westwood Middle School, located in Morgantown, West Virginia, was formed through the consolidation of three local Junior High Schools (Cass, Waitman Barbe, and Westover). The school, dedicated in the fall of 1994, houses grades 6, 7, and 8 with approximately 500 students.

CTL Engineering provided a variety of services for the existing middle school building complex and an addition that was completed in 2001. CTL provided construction observation and testing services for the initial school building complex and was later employed to perform site topographic surveying for the new addition. CTL also provided drilling and geotechnical services for the new addition and coordinated with the architect of record for the project concerning footer and foundation recommendations.

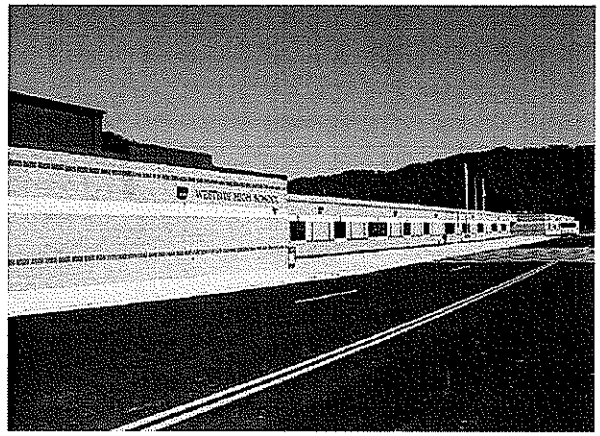
CTL ENGINEERING

PROJECT EXPERIENCE PROFILE

Project:
Westside High School

Owner:
Wyoming County Board of Education

Location:
Clear Fork, West Virginia



PROJECT FEATURES

Westside High School, located in Clear Fork, WV, was formed through the consolidation of Oceana and Baileysville High Schools. The school, dedicated in the Fall of 2002, houses grades 9 thru 12 with approximately 669 students attending.

CTL Engineering provided construction observation and testing services for the site development and construction phases of the project. CTL also assisted in providing geotechnical support relating to problematic soils discovered during the site development phase of construction. CTL made recommendations to remedy the situation by incorporating a special geo-textile material and construction technique to provide additional foundation support.

Due to poor soil conditions throughout the construction site, caissons and grade beams were incorporated into the footing and foundation plan to provide the necessary support for the main building structure. CTL provided observation and testing services for the installation of these caisson structures.

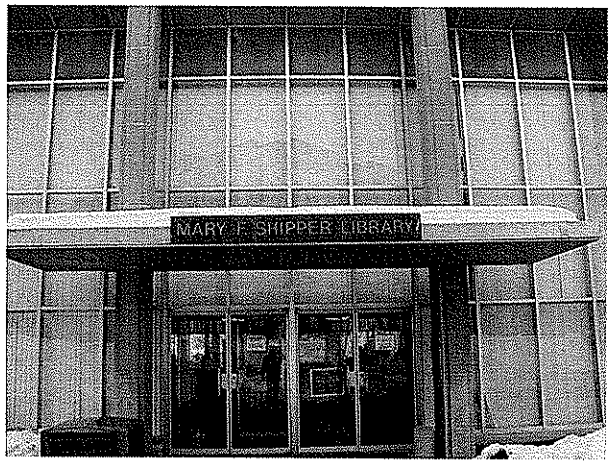
CTL ENGINEERING

PROJECT EXPERIENCE PROFILE

Project:
Mary F. Shipper Library Additions

Owner:
Potomac State College

Location:
Keyser, West Virginia



PROJECT FEATURES

CTL Engineering of WV, Inc. is teaming with Hayes Large Architects of Altoona, Pennsylvania to provide a variety of services associated with the proposed library expansion project for the existing Mary F. Shipper Library facility.

CTL Engineering will provide the following services: boundary survey, topographic mapping, infrastructure (utility) location and reconnaissance, subsurface investigations, and geotechnical evaluations. CTL will also be involved in environmental issues, including hazardous materials identification, development of a handling plan and oversight supervision of the program. Erosion and sediment control plans, storm water management plans and the accompanying permits are other items that CTL Engineering will address.

Client Reference:
Mr. Craig Meadows
Hayes Large Architects
(814)-946-0451

CTL Fees:
$10,000.00

Project Completion:
2003

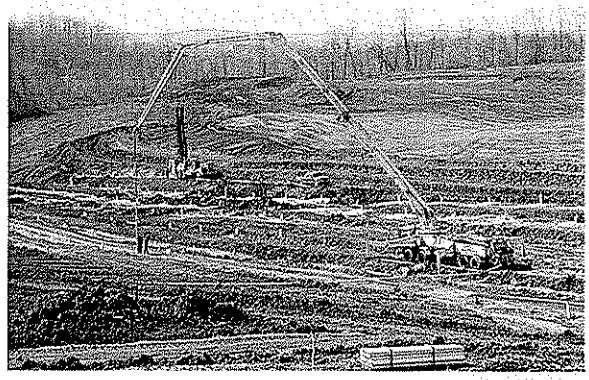
CTL ENGINEERING

PROJECT EXPERIENCE PROFILE

Project:
New University High School

Owner:
Monongalia County School District

Location:
Morgantown, West Virginia



PROJECT FEATURES

CTL Engineering of West Virginia, Inc. provided a preliminary geotechnical investigation to assess the feasibility of site selection. The study identified the presence of abandoned coal mines within the desired facility location. A foundation design and mine mitigation plan was developed to use grout injection technology and a deep foundation design.

This project involved 29,823 feet of drilling and the injection of 21,045 cubic yards of concrete to stabilize the 8 acre building zone. CTL is also providing construction supervision for the entire school site including earthwork, utilities, and structure.

Client Reference:
Mr. Frank Devano
Monongalia Co. BOE
(304)-291-9210
Project Completion:
Summer 2008

CTL ENGINEERING

PATRICK GALLAGHER, P.E., C.P.G.S. *President*

Expertise

Mr. Gallagher serves as President of CTL Engineering of West Virginia, Inc. Projects successfully completed by Mr. Gallagher include: Geotechnical Investigations, Foundation Design Investigations, Dam Stability Analyses, Mine Subsidence Evaluations, Mineral Reserve Studies, Landslide Investigations, Mine Reclamation Designs, Failure Investigations, and Mining Permits.

Prior to joining CTL Engineering, Mr. Gallagher was the chief of the Abandoned Mine Reclamation Program for the State of Maryland, Department of Natural Resources, and Bureau of Mines. In addition, he was also responsible for the deep mine permit program and overall engineering/geologic support to the Maryland Bureau of Mines Program.

Education

B.S., Civil Engineering
Virginia Polytechnic Institute and State University, Blacksburg, West Virginia, 1975

B.S., Equivalent, Geology
Virginia Polytechnic Institute and State University, Blacksburg, West Virginia, 1975

Professional Registration / Certifications

Registered Professional Engineer, Ohio, # 48459, Maryland, # 13256, West Virginia, # 9297
Pennsylvania, # PG-044930-R

Certified Professional Geological Scientist, # 6575

Professional Surveyor, WV

Experience

A partial listing of Mr. Gallagher's relevant project experience includes:

Fayette Energy Facility, Masontown, PA
Project Manager responsible for overseeing the concrete, soils, aggregates, asphalt and bolted connections for the project site. CTL has provided specialty-testing including: soil resistivity testing, and Windsor Pin testing

American Bituminous Power Partners, LLP
Project manager for services involving permitting and environmental issues. Conducted on-going inspections and certifications of the impounding refuse facilities and all drainage/sediment control structures for all permitted facilities.

Warrior Run Generation Plant, Cumberland, MD
Project manager for the construction observation and structural steel inspection services for this project.

PATRICK GALLAGHER, P.E., C.P.G.S. *President*

Allegheny Power Systems (open-ended contract for transmission distribution and power station projects)
CTL performs construction testing and observation, material testing, structural steel and surveying for various projects under this contract.

Cheat Lake Waste Water Treatment Plant Expansion, Morgantown, WV
Project Manager responsible for providing oversight and recommendations for this project. The project included increasing the capacity from 250,000 gallons/day to 750,000 gallons/day.

Chaplin Hill Sewer and Water System Expansion, Morgantown, WV
Project Manager responsible for overseeing quality assurance for corrosion protection, utility trenching, line expansion and construction methods for this project.

Project Manager for the following projects:

Canyon Mobile Home Park – System Upgrade
Foxwood Estates – Infiltration Investigation & Upgrade
Pierpont Property Development – Package Plant and Collection System
Glenmark Development – Package Plant
Kinsley Construction – Package Plant and Collection System
GENCO Land and Development – Package Plant and Collection System
Sheetz Convenience Store – Package Plant and Collection System
Silver Tree Estates – Package Plant and Collection System
B & H Properties – Package Plant and Collection System
City of Westover – Evaluation of Private System prior to city takeover
Morgantown Utility Board – Sewer Line Extension and Plant Expansion

Highways

PADOT, Open-End Contract
Project Manager/Engineer responsible for overseeing geotechnical investigations for 30 separate transportation projects.

Star City Bridge, Star City, WV
Project Manager/Engineer for geotechnical investigations, borings and road relocation during construction of the Star City Bridge.

WVDOH Open-End Contract
Project Manager/Engineer providing geotechnical support to 40 separate projects including new roads and landslides.

Allegheny Restorations, West Virginia
Provided geotechnical engineering, surveying services and shoring design, in coordination with the West Virginia Department of Transportation, for 3 covered bridge projects in West Virginia.

Schools / Hospitals

PATRICK GALLAGHER, P.E., C.P.G.S. *President*

WVU Hospitals, Morgantown, WV

CTL provided geotechnical, surveying and civil site design support services in conjunction with WVDOH and WVU for a new access road and parking area design for surrounding hospital area.

WVU Wise Library

Project Manager/Engineer providing geotechnical oversight of investigations for the building foundation systems on the construction of a new six (6) story library, which included the design of an extensive tie-back/soldier pile wall system.

WVU Life Sciences Building

Project Manager/Engineer providing geotechnical oversight of the drilling and investigations and recommendations needed for the construction of the Life Sciences Building.

WVU Student Recreation Facility

Project Manager/Engineer providing geotechnical oversight for the drilling and investigations and recommendations performed for the construction of the $34 M dollar recreational facility located on WVU campus.

WVU Eye Institute

Project Manager/Engineer providing geotechnical oversight for the geotechnical investigations and foundation recommendations performed for this $5 M dollar patient care facility.

Physicians Office Center, WVU Hospital

Project Engineer responsible for the oversight of the geotechnical drilling and site investigations for this project.

Professional Affiliations

American Society of Civil Engineers

Society of Mining Engineers, of A.I.M.E.

Triangle Fraternity of Engineers, Architects, and Scientists

International Society for Soil Mechanics and Foundation Engineers

American Institute of Professional Geologists

Publications

"Mine Subsidence Stabilization In Steeply Dipping Seams In The Canadian Rockies. A Project Overview" Presented by Patrick E. Gallagher at the 19th Annual Conference of the Association of Abandoned Mine Land Programs Canaan Valley, WV August 17-20 1997

"Dynamic Compaction of Surface Mine Spoils to Limit Settlements Within Commercial Developments", Presented Patrick E. Gallagher and C. K Satyapriya, Constructing and Controlling Compaction of Earth Fills, ASTM Seattle, Washington July 1-3 1999

DAVID E. MOORE, P.E. **Civil Department Manager**

Expertise & Work History

2009 – Present, Civil Department Manager, CTL Engineering, S. Charleston WV
1999 – 2009, Owner/Manager, Alliance Consulting Engineers & Surveyors, Arvada/Longmont, Colorado
1991 – 1999, Vice President, Jehn Engineering, Arvada, Colorado
1986 – 1991, Associate, Kidde Consultants, Baltimore, Maryland
1983 – 1986, Vice President, Haese Corporation, Boulder, Colorado
1981 – 1983, Research Assistant, University Of Colorado, Boulder, Colorado
1976 – 1981 Civil Engineer, Fluor-Daniel Inc., Irvine, California

Mr. Moore has thirty years experience in design and construction in the fields of planning, civil engineering, structural engineering, general contracting, expert testimony, land development, surveying, landscape architecture, project and business management.

Presently Mr. Moore manages the civil engineering department of the CTL Engineering South Charleston WV office. This office performs consulting engineering in the fields of civil engineering, environmental engineering, geotechnical engineering and testing.

Prior to his current position Mr. Moore founded Alliance Consulting Engineers and Surveyors a consulting engineering firm with offices in Arvada and Longmont Colorado. Mr. Moore managed and directed multiple projects and employees in the fields of planning, civil engineering, structural engineering, marketing, business administration, land development, surveying, landscape architecture, water resources, design build and construction management.

During Mr. Moore's tenure with Jehn Engineering and Kidde Consultants he performed professional engineering duties encompassing civil and structural design, expert testimony, surveying, marketing, water resources, public presentations, project management, quality assurance and quality control. These professional engineering duties were performed for a diverse array of private and public clients and encompassed a broad spectrum of duties.

While employed by Fluor-Daniel Mr. Moore was a civil construction engineer on large power plant projects throughout the United States. Mr. Moore performed design-build civil engineering services on hydroelectric and gas plants in Virginia, Texas and Wyoming. These projects were in the hundreds of millions to billions of dollars in magnitude and were designed and built by Fluor-Daniel encompassing design, procurement, construction and implementation.

Education

B.S., Civil Engineering
West Virginia University Institute of Technology, Montgomery WV 1974-1978

M.S., Civil Engineering
Colorado University, Boulder CO 1981-1983

Professional Registration

Registered Professional Engineer, Maryland, # 15100; Nevada, # 19250; West Virginia; Wyoming, # 11010; Colorado # 22495; Alberta Canada # 98121

DAVID E. MOORE, P.E. **Civil Department Manager**

Listing of Mr. Moore's relevant project experience includes:

Residential Subdivisions and Commercial Sites

Mr. Moore has performed design, project management and construction management of numerous residential subdivisions and commercial sites in Maryland and Colorado. Residential subdivisions included small one to two lot subdivisions up to subdivisions with 400-500 lots. Commercial project experience includes banks, restaurants, multi-story commercial buildings, hotels, malls and car sale and maintenance facilities. These projects include annexation, zoning, planning, platting, road design, utility design, grading, drainage, storm water management, landscaping, development agreements, cost estimates, and construction.

Golf Courses

Mr. Moore was project manager, engineering designer and construction administrator for the City of Arvada West Woods Ranch public golf course encompassing an initial 18 holes and the later addition of nine more holes. This project also encompassed over 400 acres of residential development, design and construction of 1.5 miles of four-lane boulevard, major bridge design to pass 3500 cfs Ralston Creek, two miles of trail design, wetland mitigation, irrigation design pedestrian bridge and golf cart bridge designs.

Water Resources and Drainage Projects

Mr. Moore designed and performed construction administration on water resources and drainage projects for developers, builders, and municipalities, ditch companies and water districts. Practically every project requires a drainage report and plan encompassing storm water management, flood studies, Letters of Map Revisions (LOMAR's or CLOMAR's) or storm drain design. Several notable projects include the Ralston Creek/Croke Canal overpass, Church Ditch flow limiter, Farmers Highline Canal realignment, and various flood studies on creeks and rivers.

Landscape Architecture

Mr. Moore performed design of landscape plans on many residential and commercial projects including a design/build regional park for the Town of Erie, Colorado encompassing an all purpose athletic field, baseball field with bleachers, backstops and dugouts. Additional design build projects include Candlelight Ridge Estates (125 lots) and Ryan Ranch Subdivision (130 lots).

Colorado Department of Transportation Road Design

State road design projects include 2 miles of US 60 road design in Johnstown, Colorado; Platte River Bridge/Culvert replacement in Littleton, CO; US 119 road improvements in Black Hawk and Longmont Colorado and State Highway 52 road re-design in Boulder County, Colorado.

Seniors Housing

Design of senior housing projects include the Golden Pond Seniors Housing encompassing a campus of senior apartments, assisted living and Alzheimer's facilities in Golden, CO; Arvada Estates senior housing an 118 unit senior housing project in Arvada, CO; Broomfield Retirement an 118 unit senior housing project in Broomfield, CO and Orchard Gardens an 85 unit Alzheimer's facility in Arvada, CO.

Land Development

Mr. Moore has assisted many developers through the land development process as a consultant, owner and partner. Project experience includes preparation of feasibility studies, project proforma's, preparation of loan packages, negotiation of development agreements and construction administration. Notable projects include Ryan Ranch Subdivision in Jefferson County, Colorado; Candlelight Ridge in Erie, Colorado; Ridgeview Estates in Adams County, Colorado, and Legend Ridge in Niwot, Colorado.

Structural Engineering

Mr. Moore has performed structural design, inspections, retaining wall designs, and box culvert designs, on residential, commercial and public projects. Larger projects include the Ralston Creek Bridge, trail and equestrian underpass for the City of Arvada, CO; Platte Canyon Road box culvert replacement for the State of Colorado and the Sheridan Community College dormitory buildings in Sheridan, Wyoming.

Utility Projects and Pump Stations

Preparation of utility reports and design and construction of water and sewer transmission lines, holding ponds, buildings and pump station facilities for raw water, potable water and sewer for developers, utility districts and municipalities. Projects include the regional sewer pump station for the Clear View project in Johnstown, CO; the raw water reservoirs and pump station for the City of Arvada Church Ditch takeout project in Arvada, CO.

Power Projects

Mr. Moore was project civil/construction engineer on the 1.3 billion dollar Bath County Pumped Storage project for Virginia Electric and Power Company (VEPCO) and in Bath County, Virginia. This project involved two earthen dams of which one was the tallest earth fill dam in the world at that time, design and construction of the powerhouse, tunnels and related appurtenances. Mr. Moore was a civil/construction engineer on the Chevron Carter Creek Gas Project in Evanston, Wyoming. This project was a 500 million dollar gas purification facility that was designed and constructed to purify natural gas. On both projects Mr. Moore was in the field performing design, direction of field personnel, inspections, quality control, material and equipment procurement, and related civil engineering duties.

Professional Affiliations

American Society of Civil Engineers

American Institute of Architects

Home Builders Association

Society of American Military Engineers

Publications

Published "Union and Non Union Construction in Colorado" in 1984 a Master's Thesis commissioned by the Associated General Contractor's of Colorado.

JAMES GOWARTY, JR. *Construction Services Manager*

Expertise

As the Construction Services Manager for CTL Engineering, Inc., Mr. Gowarty is responsible for supervising field and laboratory technicians. He is also responsible for report writing for field and laboratory testing, project management, client contact, estimating, proposals and invoicing for Construction Services Department.

Mr. Gowarty's experience also includes surveying, pre-mining and pre-blast surveys, field supervision of drilling crews, Phase I Environmental Audits and radiation safety officer and branch safety officer. In addition, Mr. Gowarty is the Construction Materials Testing Supervisor, providing concrete, compaction, and aggregate testing and has over six years of experience with Nuclear Gauge Operation.

Education

B.S., Civil Engineering Technology
Fairmont State College; Fairmont, West Virginia, 1990

A.S., Mechanical Engineering Technology
Fairmont State College; Fairmont, West Virginia, 1990

Professional Registrations/ Certifications

West Virginia Department of Highways Certified Compaction Technician

West Virginia Department of Highways Certified Bituminous Concrete Technician

State of Maryland Certified Water Sampler

WVDOT Aggregate Sampler

NICET Level III Asphalt & Concrete

NICET Level II Soils

Certified Dipfloor Profiler Operator

12 Years with CTL Engineering Inc.

Experience

A partial listing of Mr. Gowarty's relevant project experience includes:

Cheat Lake Waste Water Treatment Plant Expansion, Morgantown, WV
Project Manager overseeing construction observation and materials testing and inspection for this expansion project.

Chaplin Hill Sewer and Water System Expansion, Morgantown, WV
Project Manager responsible for overseeing quality assurance, construction observation and materials testing and inspection for the utility trenching, line expansion and construction methods for this project.

Schools

Suncrest Junior High School Construction Project, Morgantown, West Virginia
Project engineer responsible for daily excavation work.

Westwood Middle School, Morgantown, West Virginia
Project engineer responsible for construction observation services at this site.

West Virginia University, Morgantown, West Virginia
Project manager for Construction Testing and Observation Services at the following sites:

- Wise Library Retaining Wall
- Student Recreation Center
- Life Sciences Building

Frostburg State University, Cumberland, Maryland
Project manager for Construction Testing and Observation Services.

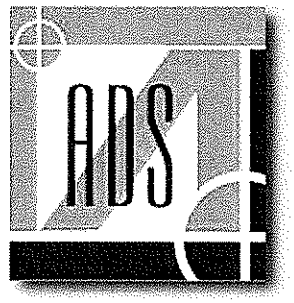
West Virginia Northern Community College, Weirton, West Virginia
Project manager for Construction Testing and Observation Services.

Bridges/ Transportation

U.S. 50 Bridge Replacements, Clarksburg, West Virginia,
Concrete technician for this project.

National Airport, Washington D.C.
Project engineer for dipstick floor profile testing for the layout of floor test sections and testing of random traffic floors.

Allegheny Design Services



Allegheny Design Services

Structural Engineering

102 Leeway Street
Morgantown, WV 26505
Phone: (304)599-0771
Fax: (304)599-0772
www.alleghenydesign.com

CONSULTING ENGINEERING FIRM SPECIALIZING IN STRUCTURAL BUILDING DESIGN AND BUILDING ANALYSIS

OFFICE BUILDINGS

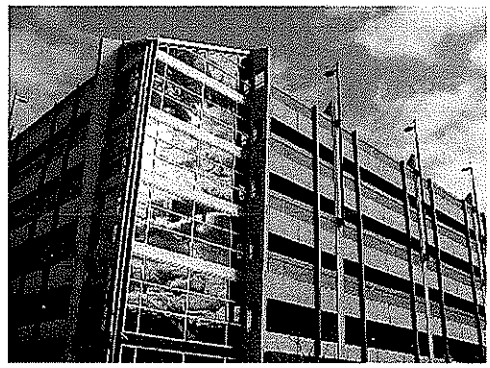
Allegheny Design Services is a consulting engineering firm specializing in structural building design and building analysis.

Dedicated to serving West Virginia and the surrounding region, *ADS* recognizes the need for reliable and full service structural engineering support. *ADS* provides all phases necessary for the successful completion of a building project including schematic design studies, design development, construction documents and specifications, and construction administration.

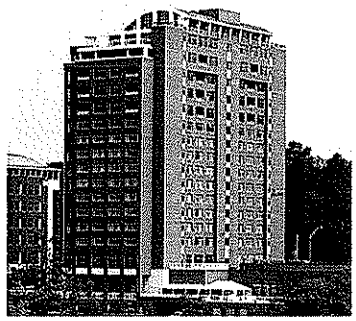
Over 20 years in Design and Project Management of:

- Commercial
- Industrial
- Institutional
- Educational Facilities

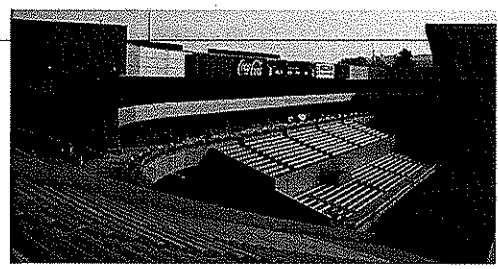
MIXED USE



PARKING GARAGES

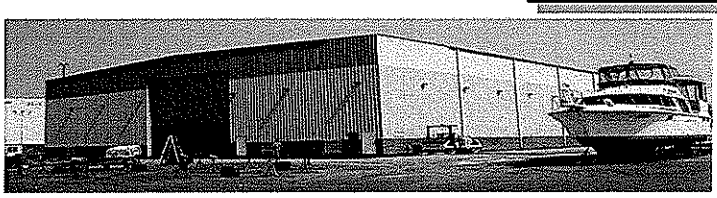


HOTEL
CONFERENCE CENTERS



ATHLETIC FACILITIES

SECONDARY EDUCATION



METAL BUILDING SYSTEMS

HEALTH CARE

Allegheny
Design Services
Structural Engineering
102 Leeway Street
Morgantown, WV 26505
Phone: (304)599-0771
Fax: (304)599-0772
E-mail: Dave@AlleghenyDesign.com
Web: www.AlleghenyDesign.com

FIRM PROFILE

Allegheny Design Services is a consulting engineering firm specializing in structural building design and building analysis.

Dedicated to serving West Virginia and the surrounding region, ADS recognizes the need for reliable and full service structural engineering support. ADS provides all phases necessary for the successful completion of a building project including schematic design studies, design development, construction documents and specifications, and construction administration. We currently hold licenses in West Virginia, Virginia, Maryland, Pennsylvania, and District of Columbia.

ADS's experience exceeds twenty-five years in the Design and Project Management of:

Commercial Facilities

Industrial Facilities

Institutional Facilities

Educational Facilities

ADS was established by David Simpson, P.E., MBA, in 2002 as a result of a need in North Central West Virginia for reliable structural engineering services. ADS utilizes a combination of office technology and a motivated staff to deliver projects typically up to $25 million in construction value. We have completed design work for over $150 million in construction since our inception. Our clients include architects, contractors, developers, attorneys, and insurance companies.

Building systems delivered by ADS include structural steel, reinforced concrete, precast concrete, and structural timber. ADS currently utilizes the latest engineering design and drafting software for the development of project work.

ADS is covered under a $1 million liability policy for errors and omissions through Beazley Insurance Company.

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Web: www.AlleghenyDesign.com

KEY PERSONNEL

David R. Simpson, P.E., SECB, MBA, President

West Virginia Institute of Technology, BSCE

West Virginia University, MBA

Structural Engineering Certification Board

P.E. Licenses in the following States:

- West Virginia
- Pennsylvania
- Maryland
- Virginia
- District of Columbia

National Council of Examiners for Engineering and Surveying

Michael L. Sipe, E.I., Engineering Intern

West Virginia Institute of Technology, BS Mechanical Engineering

West Virginia University

- Structural Analysis
- Steel Design
- Reinforced Concrete Design

Jason D. Robinson, E.I., Engineering Intern

West Virginia University, BS Civil Engineering

Allegheny Design Services
Structural Engineering

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E-Mail: Dave@AlleghenyDesign.com
Web: www.AlleghenyDesign.com

David R. Simpson, P.E., SECB, MBA
President

Education:

West Virginia Institute of Technology
B.S. Civil Engineering

West Virginia University
Masters Business Administration

West Virginia State College
Architectural Technology

Professional Registrations:

Year first registered: 1983
Structural Engineering Certification Board
West Virginia
Pennsylvania
Maryland
Virginia
District of Columbia
National Council of Examiners for Engineering and Surveying

Professional Memberships:

American Society of Civil Engineers
Structural Engineering Institute, Charter Member
American Concrete Institute
American Institute of Architects – West Virginia Chapter
American Institute of Steel Construction, Inc.
American Iron and Steel Institute Member

Continuing Education:

2005 AISC Specification for Structural Steel Buildings – September 27, 2006 – Pittsburgh, PA
ASCE Testifying Skills for Engineers – February 16, 2007 – Orlando, FL

Professional Experience:

Responsible for project management and design at Allegheny Design Services. Experience includes over 24 years in structural design and project management for industrial, commercial, institutional, and nuclear/chemical facilities utilizing steel, concrete, masonry, and wood. Past accomplishments include design and construction administration of health care facilities, hotels, schools, shopping centers, aircraft hangars, numerous retail facilities, and numerous forensic engineering assignments. Experience has been obtained from the following assignments:

Experience Record:

Allegheny Design Services, LLC, President,	May 2002 to Present
R.M. Gensert and Associates, Vice President,	August 1998 to May 2002
West Virginia University, Assoc. Director Construction	August 1988 to August 1998
Simpson Engineering, Owner	August 1988 to August 1998
CECO Buildings Division, Senior Structural Engineer	April 1985 to August 1988
Rockwell International, Facility Structural Engineer	March 1982 to April 1985
Bellard Ladner & Assoc., Staff Structural Engineer	Sept. 1981 to March 1982
PPG Industries, Facility Structural Engineer	January 1980 to Sept. 1981

Additional Professional Experience:

Experience encompasses design, project management, and construction administration for reinforced concrete, structural steel, precast concrete, masonry, and wood structures.

Project experience includes:

Fairmont Senior High School, Fairmont, WV
Belmont Community Center, St. Clairsville, OH
Monongalia General Hospital Operating Room Addition, Morgantown, WV
Chestnut Ridge Church, Morgantown, WV
West Virginia University Business and Economics Building, Morgantown, WV
West Virginia University High Density Book Storage Facility, Morgantown, WV
West Virginia University Life Sciences Building, Morgantown, WV
West Virginia University Student Recreation Center, Morgantown, WV
West Virginia University Wise Library Addition, Morgantown, WV
West Virginia University White Hall Computer Center, Morgantown, WV
UPMC Hillman Cancer Center, Pittsburgh, PA
Carnegie Museum of Natural History Addition, Pittsburgh, PA
Cultural Trust District Parking Garage, Pittsburgh, PA
Delaware Valley Veterans' Home, Philadelphia, PA
Fairmont State University Parking Garage, Fairmont, WV
First Avenue Parking Garage, Pittsburgh, PA
Hillman Cancer Center (UPMC), Pittsburgh, PA
New Enterprise Precast Corporate Headquarters, New Enterprise, PA
Respironics Corporate Office Facility, Pittsburgh, PA
International Brotherhood of Electrical Workers Headquarters Training Center, Pittsburgh, PA
Laurel Highlands Middle School Addition, Uniontown, PA
Trinity High School, Morgantown, WV
Mylan Pharmaceuticals Parking Garage, Morgantown, WV
Phipps Conservatory Addition, Pittsburgh, PA
Radisson Hotel and Conference Center, Morgantown, WV
Western Pennsylvania School for Blind Children, Pittsburgh, PA
In-Situ Vitrification Nuclear Waste Encapsulation Project, Richland, WA
Dominion Transmission Office Building, Clarksburg, WV
Multiple structural evaluations and expert witness for structural damage due to subsurface mining subsidence, floods, ice, wind, and construction errors
Over 400 low-rise metal building projects from Maine to South Carolina, including warehouses, aircraft hangar facilities, shopping centers, industrial facilities, and office facilities.

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Web: www.AlleghenyDesign.com

Michael L. Sipe, E.I.
Engineering Intern

Education:

West Virginia University Institute of Technology
B.S. Mechanical Engineering
Minor: Mathematics

Awards/Achievements/Organizations:

Deans List, last 4 completed semesters
Member of Pi Tao Sigma
Member of AISC
Associate Member of ASCE

Professional Registrations:

West Virginia, Engineering Intern License # 8519

Professional Experience:

Responsibilities include structural engineering design, construction documents, quality control, field engineering and project engineering.

Experience record:

Avery Court Apartments, Parkersburg, WV
Cutlip Christie Office Complex, Clarksburg, WV
Dominion Exploration Addition, Jane Lew, WV
Fairmont State University Smoke Vents, Fairmont, WV
Finite Element Analysis of Various Material Handling Structures
Gassaway Bank, Flatwoods, WV
Glenmark Office Building, Morgantown, WV
Greer Limestone Conveyor Structure Renovations, Morgantown, WV
Morgantown Event Center, Morgantown, WV
Pressley Ridge School Residence Hall & Dining Facilities, Clarksburg, WV
Proplex Athletic Training Facility, Morgantown, WV
Waterfront Marina, Morgantown, WV
West Milford Elementary School Classroom Addition, West Milford, WV
WVU Downtown Student Housing, Morgantown, WV
WVU Puskar Academic Center, Morgantown, WV

Courses and Continuing Education:

WVU Structural Analysis I, Spring 2006
WVU Steel Design, Fall 2006
WVU Reinforced Concrete Design, Spring 2007
AISC Design Steel Your Way with the 2005 AISC Specification, September 2006
ASCE Steel Framed Buildings, May 2007
AISC Façade Attachments to Steel Frames, September 2007
ASCE Reinforced Masonry: Design and Construction, November 2007

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Phone: (304)599-0771
Fax: (304)599-0772
E-mail: Jason@AlleghenyDesign.com
Web: www.AlleghenyDesign.com

Jason D. Robinson, E.I.
Engineering Intern

Education:

West Virginia University
B.S. Civil Engineering

Awards/Achievements/Organizations:

Dean's List
Member of AISC
Associate Member of ASCE

Professional Registrations:

West Virginia, Engineering Intern License #8699

Professional Experience:

Responsibilities include structural engineering design, construction documents, quality control and field engineering.

Experience record:

Gabriel Brothers Renovation, Clarksburg, WV
Goshen Baptist Church, Morgantown, WV
Mylan Upper Warehouse to Labs, Morgantown, WV
The Dayton, Morgantown, WV
The View at the Park Phase 2, Morgantown, WV

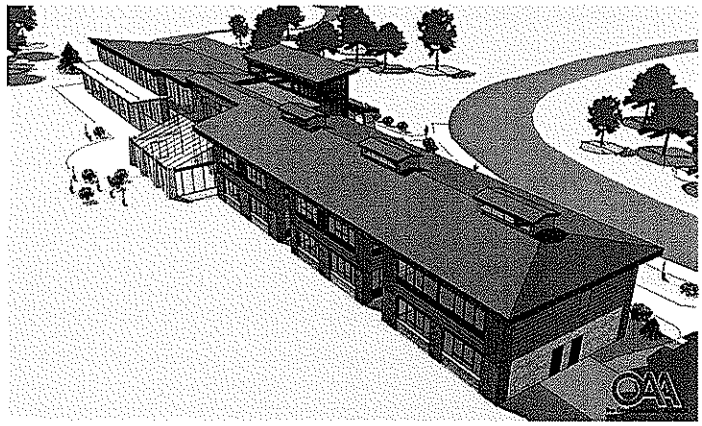
Courses and Continuing Education:

WVU Steel Design – Fall 2007
AISC Façade Attachments to Steel Frames, September 2007
ASCE Reinforced Masonry: Design and Construction, November 2007

Allegheny Design Services
Structural Engineering

PROJECT PROFILE

Canaan Valley Institute
Headquarters/Educational Facility
Davis, WV



PROJECT ARCHITECT: The Omni Associates—Architects, Fairmont, WV
STRUCTURAL ENGINEER: Allegheny Design Services, Morgantown, WV
CONTRACTOR: Manheim Corporation, Pittsburgh, PA

PROJECT SCOPE:

- Research Facilities
- Offices
- Public Service Facilities

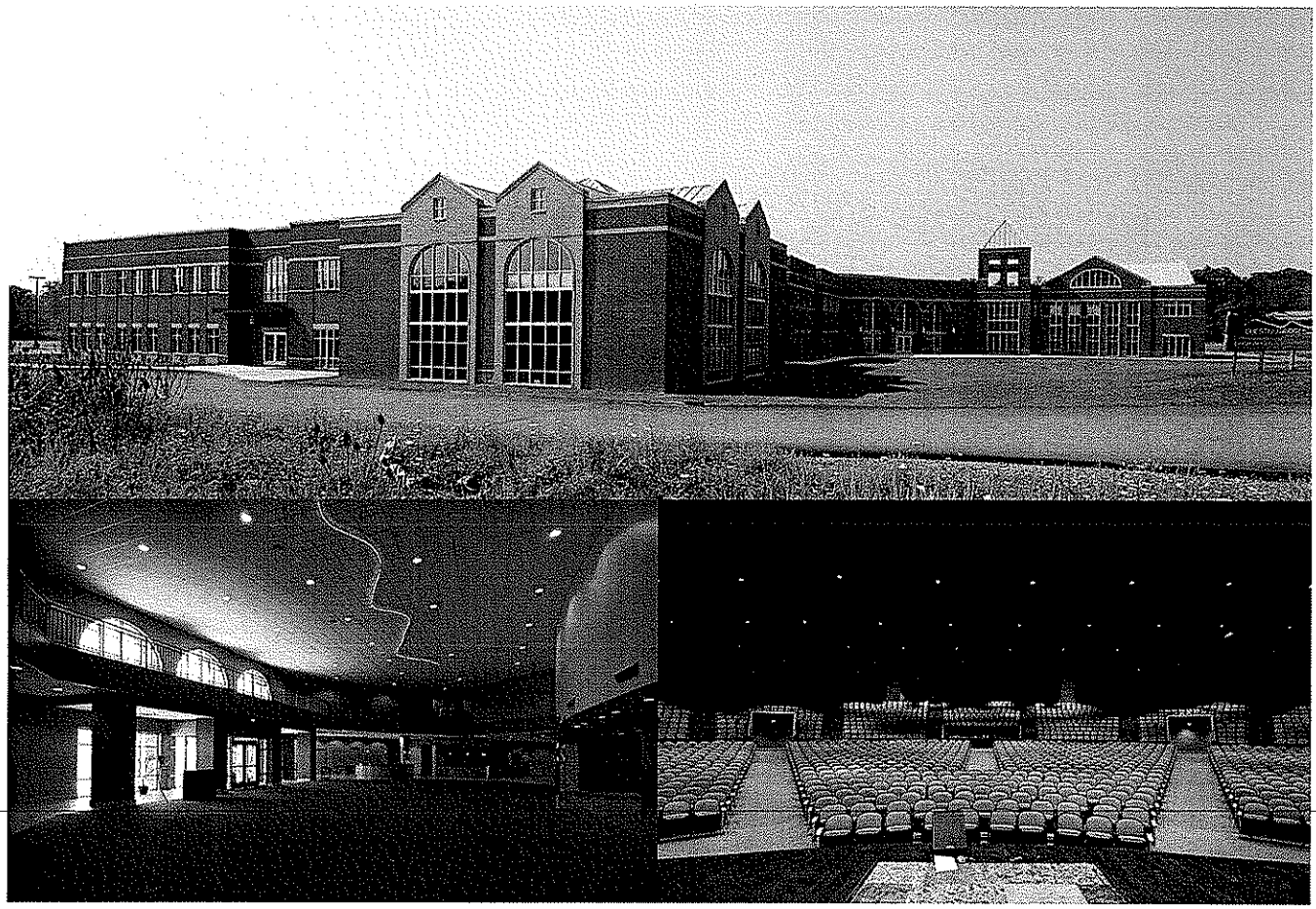
PROJECT VALUE: $6.5 Million

ESTIMATED PROJECT COMPLETION: 2009

Allegheny Design Services
Structural Engineering

PROJECT PROFILE

Chestnut Ridge Community Church
Morgantown, WV



PROJECT ARCHITECT: Paradigm Architecture, Morgantown, WV
STRUCTURAL ENGINEER: Allegheny Design Services, Morgantown, WV
CONTRACTOR: March-Westin Company, Inc., Morgantown, WV

PROJECT SCOPE:

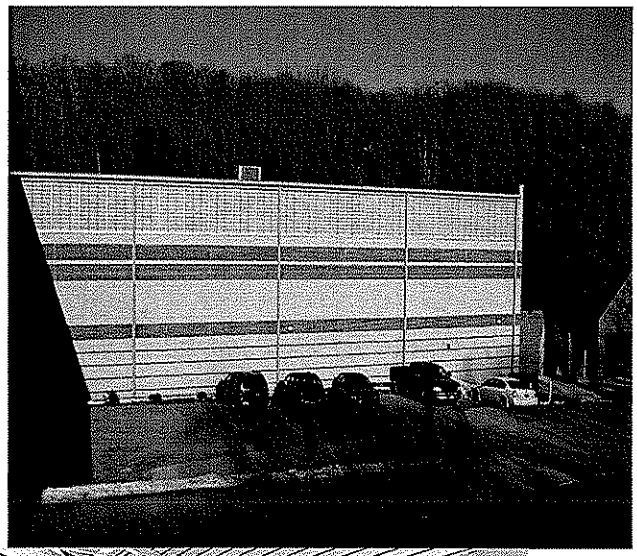
- Education/Gymnasium Wing
- Administrative Office Wing
- 2000 Seat Sanctuary

PROJECT VALUE: $12 Million
PROJECT COMPLETION: 2006

Allegheny Design Services
Structural Engineering

PROJECT PROFILE

Davis & Elkins College
Athletic Center
Elkins, WV



PROJECT ARCHITECT: Paradigm Architecture, Morgantown, WV
STRUCTURAL ENGINEER: Allegheny Design Services, Morgantown, WV
CONTRACTOR: March-Westin Company, Inc., Morgantown, WV

PROJECT SCOPE:

- Gymnasium
- Offices
- Classrooms

PROJECT VALUE: $6 Million

PROJECT COMPLETION: 2006

Allegheny Design Services
Structural Engineering

PROJECT PROFILE

Delaware Valley Veteran's Home
Philadelphia, PA

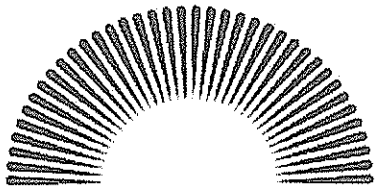
PROJECT ARCHITECT: GBQC Architects, Philadelphia, PA
STRUCTURAL ENGINEER: David Simpson of Allegheny Design Services, Morgantown, WV in former employ of R. M. Gensert Associates, Pittsburgh, PA

PROJECT FEATURES:

- New State-of-the-Art 170 Bed Care Facility
- Personal and Alzheimer's Care
- Interior Skylit 'Main Street' Corridor
- Designed and bid in eight months

PROJECT VALUE: $19 million

PROJECT COMPLETION: 2002



ZDS

Design/Consulting Services

MECHANICAL . ELECTRICAL . INDOOR AIR QUALITY . ENERGY . COMMISSIONING

91 Smiley Drive
St. Albans, WV 25177

Phone: 304-755-0075
Fax: 304-755-0076

Email: ZDSDesign@aol.com

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.

In 1983, Todd A. Zachwieja founded ZECO Consultants. In 1994 ZDS Limited Liability Company was incorporated in WV using dba ZDS **Design/Consulting Services.** This company was founded to provide design and consulting services. Today there are 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 28 years in the design and consulting business.
- **Ted T. Zachwieja,** Principal over Construction Administration services with over 45 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 22 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, Chief Financial Officer and cofounder of ZECO Consultants.

ZDS is a consulting engineering firm specializing in the following areas:

MECHANICAL
ELECTRICAL
INDOOR AIR QUALITY
COMMISSIONING
ENERGY

Each new project is assigned to a principal in-charge who will follow the project from inception through commissioning.

We assign 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.

"Excellent mechanical and electrical design results from an experienced team, as well as, listening to the needs of the Client."

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.

We work 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 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.

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."

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 *IN*VIRONMENT© *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 *IN*VIRONMENT™ *Newsletter*, by Chelsea Group for Powers Educational Services.
- *Ventilation for a Quality Dining Experience: a Technical Bulletin for Restaurant Owners and Managers*, released in January 1993.
- *The New Horizon: Indoor Environmental Quality*, published as a supplement to 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 *IN*VIRONMENT™ *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 organization, 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.

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:

- **P**roviding detailed analysis of facilities.
- **R**ecommending sound and proven energy saving solutions.
- **I**mplementing energy management improvements
- **D**etermine, quantify and assist in securing available Utility & Government grants.
- **E**valuating 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 ones.
- Converting constant speed air handling equipment and pumping 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.

The ZDS team is trained and experienced in advising you of program options to incorporate energy efficiency and operational saving 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 saving options and providing supporting financial information. We then help you to 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 constructions' deficiencies that were not discovered until the contractors traditional one-year warranty period expires. 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 consists 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 Owners operational needs.

National Recognition

The National Conference on Building Commissioning invited Todd Zachwieja, ZDS's 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 **Design/Consulting Services** 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	Virginia	North Carolina	Georgia
Kentucky	Ohio	Pennsylvania	Florida
Illinois	Connecticut	Texas	Michigan
New York	Wisconsin	Massachusetts	Indiana
Colorado	Tennessee	Maryland	Washington DC
California	Hawaii	South Carolina	

Our 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.

Our 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.

Our 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.

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 Client's*** needs, on time and within budget with outstanding quality.

We view 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.

ZDS was formed to provide quality engineering and consulting services specializing in:

- Design of mechanical systems and electrical systems.
- Building indoor air quality survey and analysis.
- Energy management and conservation services.
- Commissioning for new and renovated systems in commercial, institutional and industrial buildings.

The experience and the excellent reputation of the firm's officers and associates are well known throughout the state of West Virginia, Ohio and the United States for their dedication to the interest of their clients as well as their technical strengths and experience.

ZDS approaches engineered systems improvements from the building owner operator's perspective, focusing on practicality, cost effectiveness, energy efficiency, reliability, operability, maintainability of the systems and timely implementation of projects to minimize disruption on existing facilities. We concentrate on optimizing and utilizing the existing systems prior to recommending the purchase of new equipment when upgrading a facility. Actual requirements of existing systems are analyzed and considered in addition to the "design" requirements. Our staff listens to their clients needs through their extensive interaction with the facility operators and the key decision-makers. We believe this approach enhances the design of new systems and ensures that the systems will be practical and functional.

ZDS is a team of professionals capable of meeting a diverse range of needs of facility professionals in the building design, construction and operations. The five principals each have specialties in certain aspects that relate to meeting the needs of the building owners and operators. Mr. Ted T. Zachwieja's 44 years of experience in mechanical and electrical design bring the depth of skills necessary to make the construction and design process operate effectively. Mr. Todd A. Zachwieja's project management skills with his extensive technical strengths in mechanical engineering and experience in indoor air quality, energy management and commissioning complement the traditional design needs. Mr. Daniel H. Kim's extensive management experience with some of the nation's largest companies provides us with important conceptual planning and organizational understanding. Ms. Lori Zachwieja's accounting and financial management skills with Ms. Sandra Zachwieja's specifications management skills provide the in house experience to operate an efficient and effective company to better serve our clients. ZDS has a team of consultants and associates to meet the challenges of our client's building design and operating needs.

TODD (TED) A. ZACHWIEJA, PE, C.E.M.

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

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
Professional Engineer, Pennsylvania, No. PE-040929-R
Professional Engineer, Virginia, No. 0402 025427
Professional Engineer, Ohio, No. E-53587
Professional Engineer, North Carolina, No. PE-17,445
Professional Engineer, Kentucky, No. PE-17,961
Professional Engineer, Georgia, No. 18,253

Qualifications

Todd has more than 22 years of experience; in the design, construction management, and specifications for mechanical engineering, heating, ventilating, air conditioning, plumbing, electrical, and lighting; indoor air quality analysis and building system commissioning for institutional, commercial and industrial 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 facilities, hospitals and school design including preparation of construction documents for millions in renovations and additions to facilities. Some of his project experience includes projects with Mercer County Commission – new 30,000 sf Mercer County Courthouse, Princeton, WV, Kanawha County Commission – 120,000 sf additions/renovations for the Judicial Annex/Kanawha County Courthouse Charleston WV, Laidley Towers – Charleston WV, WV State Capitol complex, Cultural Center HVAC Renovation, Union Carbide, United Center - Charleston WV, Phillip Morris USA, Rhone-Poulenc, Toyota, Olin Corporation, Walker Machinery, WV Air National Guard, Bank One, WV; Kohl's, Sears, WV Public Service Commission Headquarters, and Yeager Airport. He also designed one of the largest geothermal heat pump applications in the mid Atlantic region, 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. Other heath care experience includes Bluefield 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, Mercy Medical Center, Wayne Memorial Hospital and Webster Memorial Hospital.

He also has experience in providing M/E design for the following College and Universities including:, Bluefield State College, Concord College, Fairmont State College Marshall University, Ohio University's Athens & Chillicothe campuses, Southern WV Community & Technical College, Washington & Lee University, WV Wesleyan College, and West Virginia University. He was recently recognized nationally for his work with Ohio University in development of a performance contracting program that is anticipated to save between $2 to $2.5 million annually in energy and operating costs.

He also has experience in providing M/E design for the following schools: Clay, Grant, Hardy, Harrison, Jackson, Kanawha, McDowell, Ohio, Pocahontas, Raleigh, Ritchie, Summers, Taylor, Tucker, Upshur, Webster, and Wyoming County Schools. 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 indoor air quality requirements.

Prior to joining **ZDS**, Todd Zachwieja coordinated more than $10 million in comprehensive energy conservation programs resulting in annual energy saving of over $2 million per year and managed a profitable regional office for one of the countries largest energy service companies. He has also assisted in the development of computer programs for building energy analysis and monitoring and presented technical papers at regional and national conferences.

Professional Affiliations

Charter member of and instrumental in establishing the West Virginia 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 2003 Business Man of the Year
Charter life member of the Association of Energy Engineers
Member of the American Association of Hospital Engineers
Member of the National Society of Professional Engineers
Member of National Society of Plumbing Engineers
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 mechanical/electrical engineering systems.
Presented at regional and national conferences including the National System Commissioning Conference

TED T. ZACHWIEJA

Principal-in-Charge Construction Administration

Education

Bachelor of Science in Mechanical Engineering, West Virginia Institute of Technology, 1958.

Qualifications

Ted's responsibilities include over 44 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 Specialists.

He has been involved in West Virginia since 1958 in all aspects of mechanical and electrical design and construction, 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, 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 Bank One, Charleston, formerly Charleston National Bank, includes the following:

- Comprehensive energy audit.
- The Building Automation Energy Management System.
- HVAC renovations of floors LM and LM1.
- Design of flat plate heat exchanger system for the perimeter fan coil units.
- Design of the boiler replacement.

Ted has been involved in the Renovation Planning of West Virginia University's White Hall and Armstrong Hall, WVU's Wise Library Sprinkler System, WVU's Chilled Water Loop Interconnect, Morgantown, WV; Charleston Area Medical Center (CAMC), Memorial Division Chiller Replacement; CAMC's General Division Chiller Replacement, Variable Pumping System and Chillers Interconnect, Charleston, WV; and many others. He has worked on new and renovation projects such as West Virginia University Stadium and Forestry Building, Morgantown, WV; Addition and Renovation of the Air Conditioning System for the West Virginia State Capitol Building, Charleston, WV; Conley Hall and Science Building HVAC Renovations and Additions, West Virginia Institute of Technology, Montgomery, WV; 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, WV; and Rhone Poulenc,

Institute, WV; HVAC renovation for the Benedum Student Center at West Virginia Wesleyan College, Buchannon, WV; Greenbrier East and Greenbrier West Schools; Mingo County Schools; Raleigh County Schools including Shady Springs Middle School, Trap Hill Junior High School, Academy of Career and Technology Center, Marsh Fork Elementary and others, Pocahontas County High School (Geothermal), Wyoming County Schools; Tucker County Schools; Webster County High School & Webster Springs Elementary School HVAC Renovations (Geothermal) and Exterior Renovations, and various other secondary schools throughout the years.

Ted was recently involved with the mechanical and electrical renovations for the State of West Virginia Library Commission stacks and office spaces as part of a total $4.5 million HVAC and Electrical Renovations for the Division of Culture and History, Charleston, WV. The indoor air quality, temperature and humidity each were not in accordance with good design practices for this type of structure. ZDS is commissioned to correct these deficiencies. Conserving energy was also a consideration. The building is being converted from an all electric to a gas fired hot water heating system.

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 heath care experience includes Bluefield 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, 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

MARK A. MOORE, E. I. T.

Electrical EIT/Information Systems Specialist

Education

BS in Electrical Engineering from West Virginia University Institute of Technology, Montgomery, WV
West Virginia University, Morgantown, WV

Registration

EIT West Virginia #08010

Qualifications

Mark has more than 3 years of experience in the information systems and design for mechanical engineering, heating, ventilating, air conditioning, plumbing, electrical, and lighting for institutional and commercial facilities. He specializes in Lighting and Electrical design. He researches and applies Illuminating Engineers Society standards and National Electric Code in design. Mark has a strong background in microprocessor and microcomputer use in design and continues to strengthen his electrical design.

Mark is also an information systems specialist and provides networking solutions and Windows based programming system solutions. His skill to fix problems on our hardware and software enables us to keep our systems up and running. He is familiar with programming in C++ and assembler. He designed the engineering programs in Excel and created customized programming in ACT databases. He implemented our new Internet/networking connections, set up Internet and inter office e-mail systems. He instructs staff on the use of new and updated computer programs.

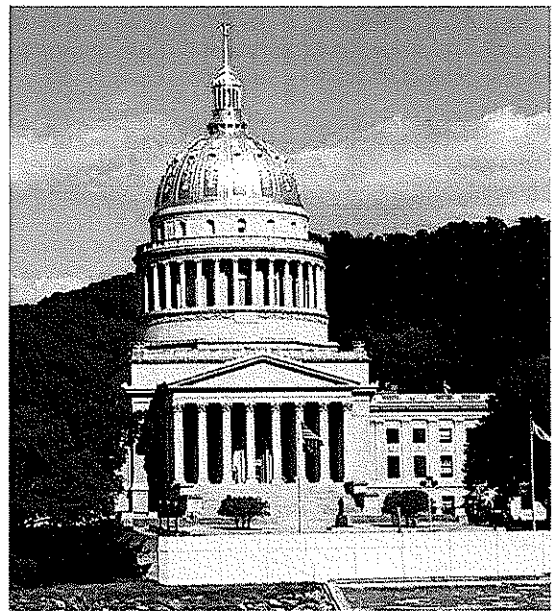
Mark has Auto CAD 14 and 2002 design experience; produces details and trouble-shoots problems. He manages CAD operators. He handles electronic processing and replicating functions and is responsible for Information Technology functions for ZDS and our customers. He is specializing in security, fire alarm and lighting with some of his recent projects including: Kanawha County Judicial Annex Renovations, Charleston, WV, Webster Springs Elementary School geothermal heap pump system, Webster Springs, WV, Hopemont State Hospital Fire Alarm renovations, Bennett Hall M/E Renovations, Chillicothe, OH, Camp Dawson Barracks security renovations, Woodrow Wilson High School lighting renovations, IMC office facilities and others.

ZDS Design/Consulting Services

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

Client Contact: Mr. Russ LaBarbra,
Sr Performance Assurance Eng
Johnson Controls, Inc.
4132 First Ave.
Nitro, WV 25143
Phone: (304)-759-2709
Cell (304) 389-1254

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

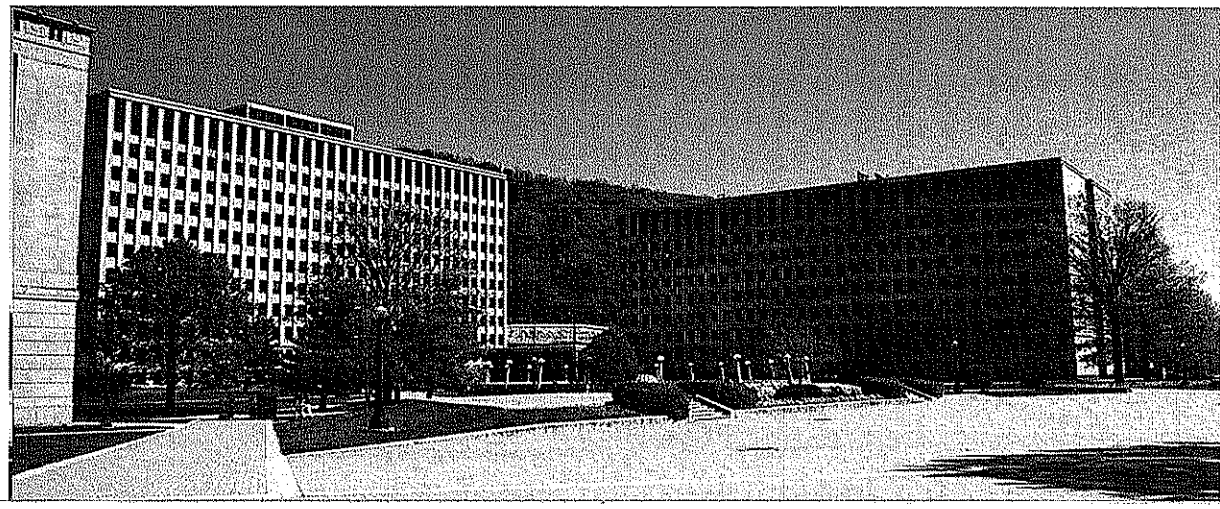
ZDS Design/Consulting Services and Johnson Controls Inc.

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,

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, or through separate projects planned for 2,137,400 square-feet involving 15 buildings at the campus.

Performance Contracting Program Costs:	**Up to approximately $20,000,000**
Potential Savings:	***Improvements self-fund within 15 years***
Size:	**1,929,155 FT^2**
Completion:	**2007 for Construction**

ZDS Design/Consulting Services

Client: ***Webster County Schools, West Virginia***
Project: ***Webster County High School Renovations***

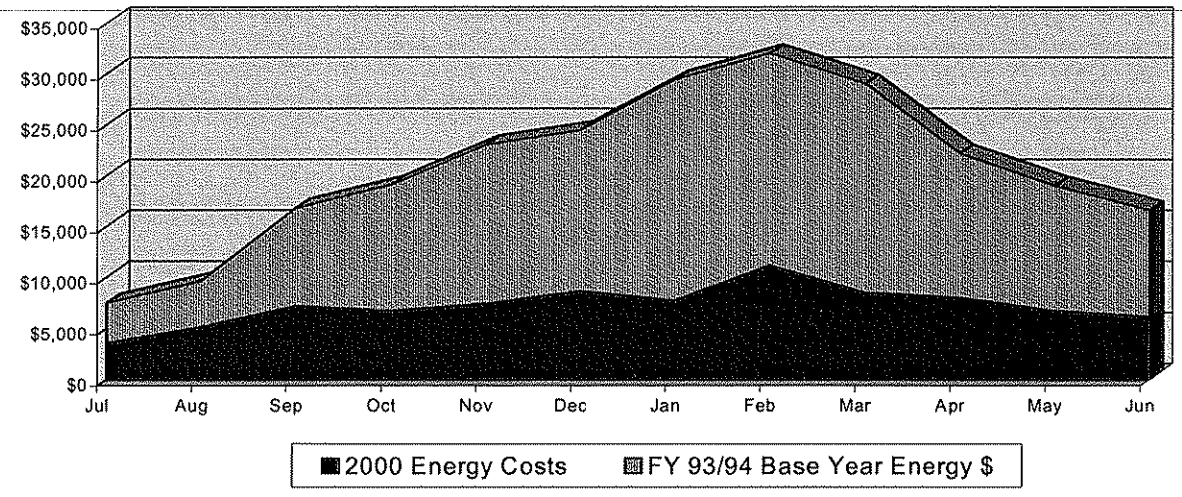
Client Contact: Mr. Harry Given, Retired Dir. of Maintenance.
Webster County Schools
Webster Springs, WV 26288-1123
Home Phone (304) 226-5288

Project Description

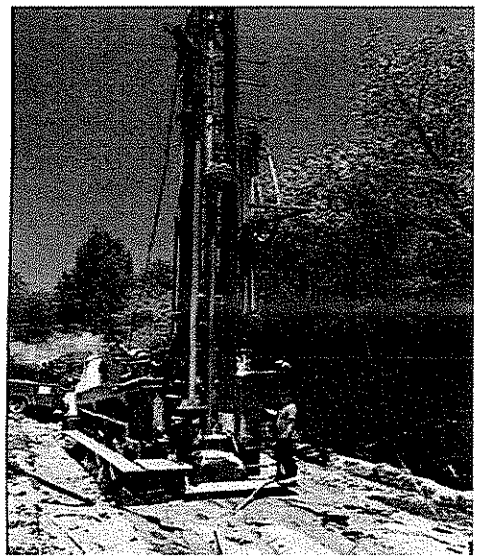
Initially Webster County Schools solicited bids from several Performance Contracting firms to make upgrades at the high school and pay for the improvements. Performance contracting approach could only partially pay for the improvements and a pure performance contracting approach was dropped. Webster County Schools then hired **ZDS** Design/Consulting Services to evaluate their options, design their recommended solutions for Webster County High School, and establish an approach to address the county HVAC needs with low operating costs.

Multiple Heating Ventilating and Air Conditioning (HVAC) systems were evaluated and a geothermal heat pump system proved to have the lowest life cycle cost. This system was projected to reduce their HVAC electric cost by nearly 50% over usage of the existing system. **ZDS** assisted Webster County Schools in obtaining funding for the project from the State's School Building Authority and receive additional grants from the Geothermal Heat Pump Consortium and Allegheny Power for the project which was the first major geothermal heat pump system in the State of West Virginia.

Webster County High School
Geothermal Heat Pump Energy Savings



Webster County High School used a 500 ton geothermal heat pump loop consisting of 240 wells; 307 foot deep, with over 28 miles of underground piping spread in an adjacent practice football field. A 20% propylene glycol/water solution is pumped through the closed loop with a variable water volume (VWV) pumping system for energy and operation systems. The HVAC system is fully automated through a central Direct Digital Control (DDC) system. Indoor air quality issues are addressed in the new design through increased ventilation, improved filtration, customizing the design of the AHU's to address current Indoor Air Quality (IAQ) practices, and cleaning/coating existing ductwork. Operating costs for the increased ventilation were minimized through incorporating air-to-air energy recovery systems into the new rooftop air handling equipment. The combining of the air-to-air heat recovery together with the primary air handling equipment is receiving national attention and may the first of its kind for geothermal applications.



Drilling for the ground loop for Webster County High School's 500-ton Geothermal system.

It is the largest GeoExchange installation to date in West Virginia and the surrounding region.

Systems for Control of Energy Use: Geothermal Heat Pump system, DDC controls, customized rooftop AHU's with air-to-air heat recovery, and variable water volume pumping.

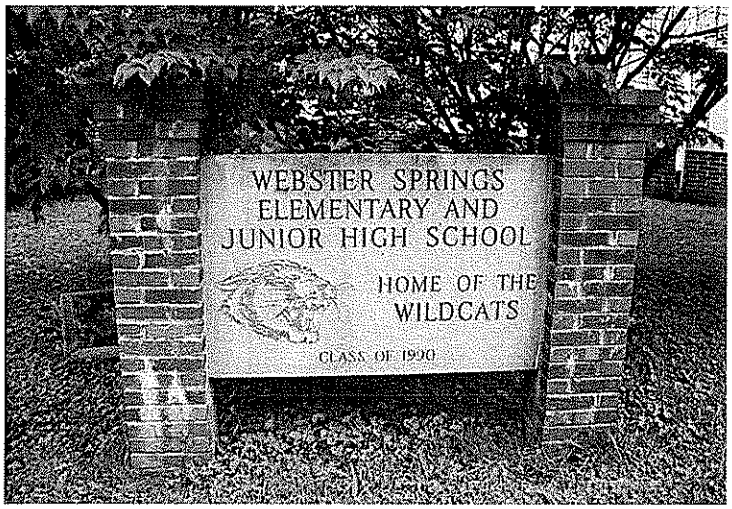
The interior lighting, ceilings and bricking the exterior are part of the overall upgrades to Webster County High School. Webster County Schools was so impressed with the results at Webster County High School that the approach was applied to Webster Springs Elementary School and is proposed for Glade Elementary School when funding becomes available.

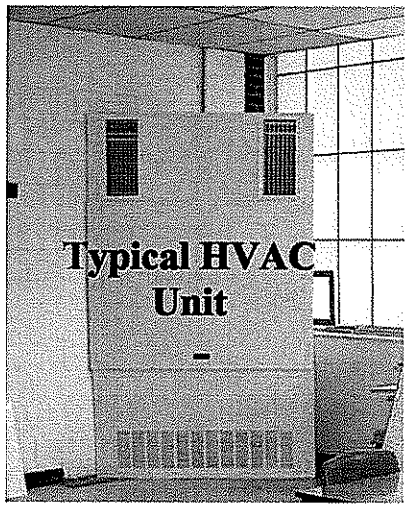
Total Project Cost:	**$5,083,000**
SBA Funds:	**$5,083,000**
Potential Annual Energy Savings:	**50% Reduction HVAC & Lighting Operating Costs.**

ZDS Design/Consulting Services

Client: ***Webster County Schools, WV***
Project: ***Webster Springs Elementary School HVAC Renovations***

Client Contact: Mr. Harry Given, Retired Dir. of Maintenance.
Home Phone (304) 226-5288
Webster County Schools
Webster Springs, WV 26288-1123





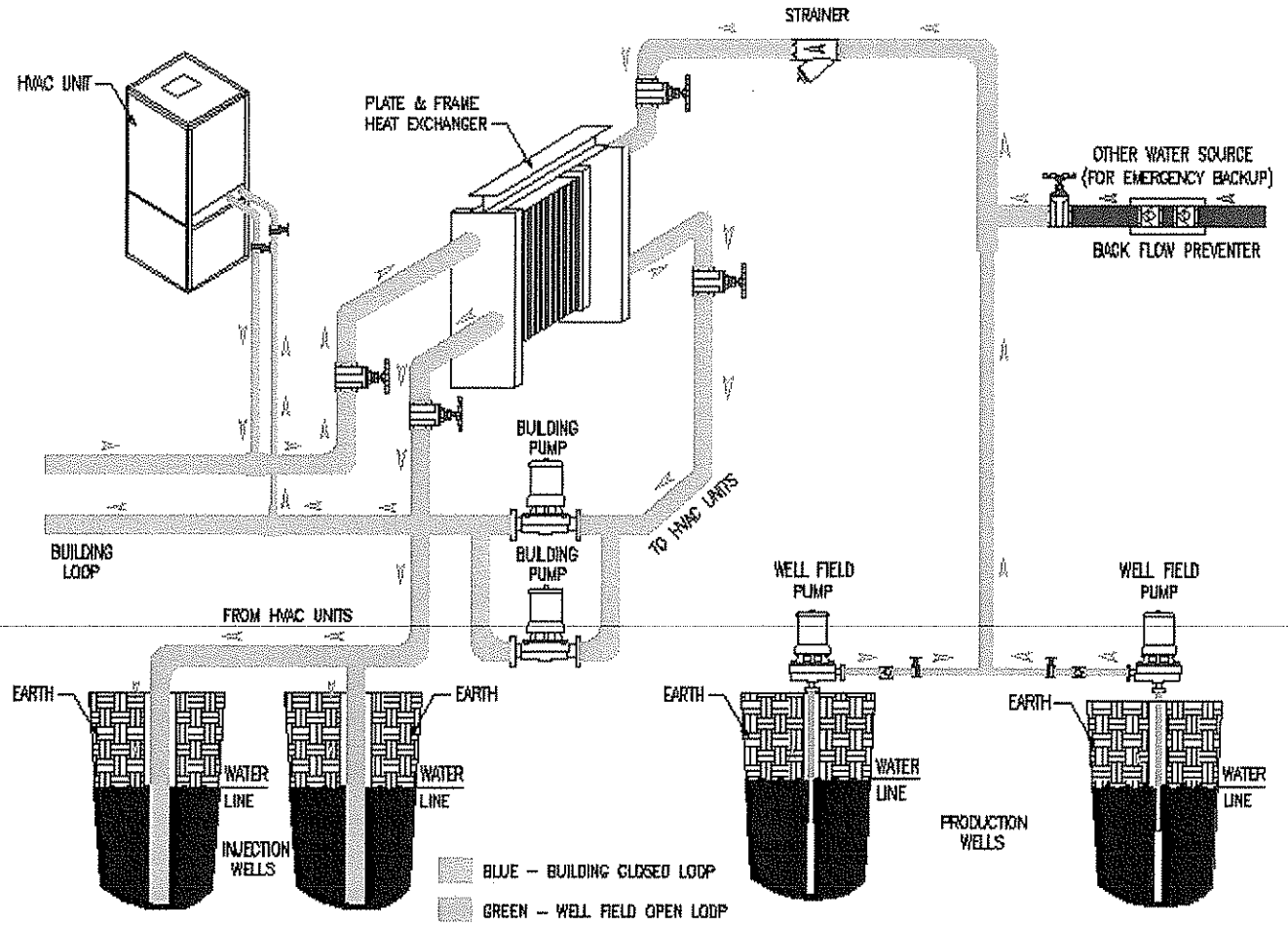
Project Description

ZDS assisted Webster County Schools in obtaining funding for the project from the State's School Building Authority to upgrade Webster Springs Elementary's HVAC systems. The elementary school is a two story structure and was using coal fired steam boilers. Natural gas was not available and the labor and emissions from using coal fire boilers were no longer acceptable. Geothermal heat pump systems were designed and constructed for the school's new HVAC system. The football field beside the school was selected to install the well field. Once construction started, a tremendous amount of water was encountered below the grade which made installing a closed loop well field impractical. Since this large underground aquifer was found an open-loop well field was designed and installed. Multiple production wells and injection wells were installed that extract water from the ground which is piped through a plate and frame heat exchanger then injected back into the ground. ***See the diagram on the next page for more details.***

The HVAC system in the building remained a closed loop system by circulating fluid through the plate-and frame heat exchanger. A 20% propylene glycol/water solution is pumped through the building closed loop using a variable water volume (VWV) pumping system for energy

efficiency and operational flexibility. The building water never comes in direct contact with the well water because the heat exchanger keeps these two water streams separated. A special permit was required in order to use this type of system. This was the first system installed according the State Department and **ZDS** help establish a procedure to minimize the risk of cross contamination with underground aquifers as part of this project.

Indoor air quality issues are addressed in the new design through increased ventilation, improved filtration, customizing the design of the HVAC units to address current Indoor Air Quality practices. Ultraviolet lights are installed to reduce the risk of mold growth and also kill air born germs. Operating costs for the increased ventilation required to meet Indoor Air Quality were minimized through incorporating carbon dioxide outdoor ventilation air control. The open loop geothermal heat pump system is the first of its kind for a West Virginia School.



Total Project Cost:	**$1,430,000**
SBA Funds	**$1,300,000**
Potential Annual Energy Savings:	**40% Reduction in HVAC energy usage**

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, Plumbing & Electrical retrofits, DDC Controls, AHU's replacement, chiller replacement, VWV pumping, new electrical service, switchgear and fire alarm systems.

Project Description

Harris Hall, on Third Avenue, 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". The plumbing was also wasteful with an opportunity to incorporate water saving features into the existing plumbing systems.

Marshall University initially contracted ZDS to evaluate Harris Hall's existing mechanical/electrical/plumbing 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/operating 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/Plumbing 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. Plumbing fixtures were upgraded with water conserving low flow auto flushing devices to reduce water/sewer costs.

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 & energy efficient lighting with motion detectors 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**

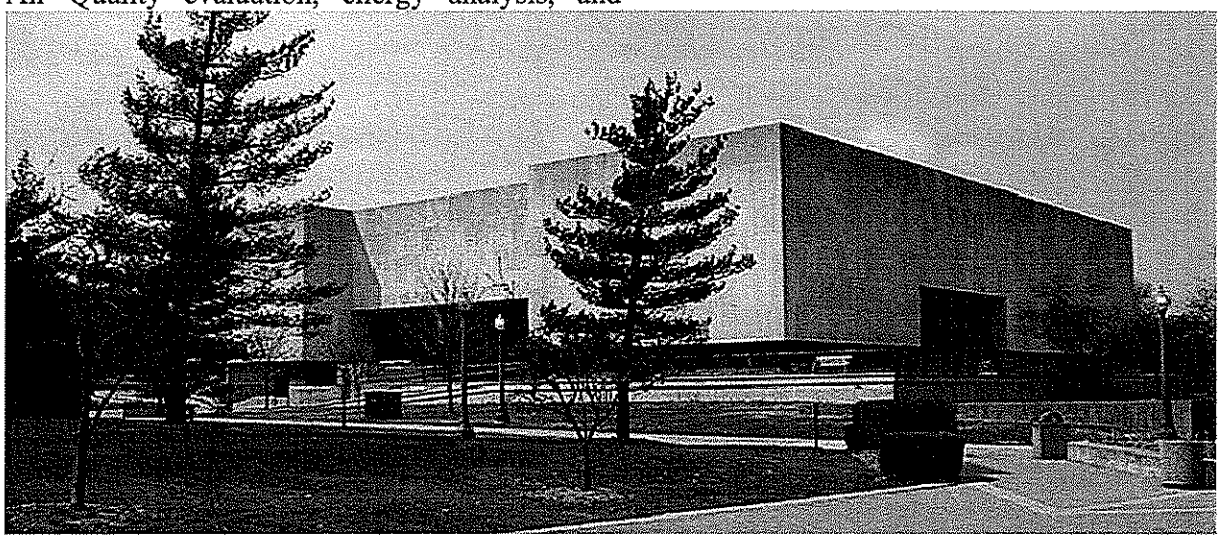
ZDS Design/Consulting Services

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, x 160
The Cultural Center - Bldg 9
WV Capitol Complex
Charleston, WV 25305

Mechanical/Electrical/Fire Protection design, bidding and construction administration services for retrofitting the 228,500 ft^2 museum and protecting the artifacts.

Services: Engineering Master Planning, Indoor Air Quality evaluation, energy analysis, and



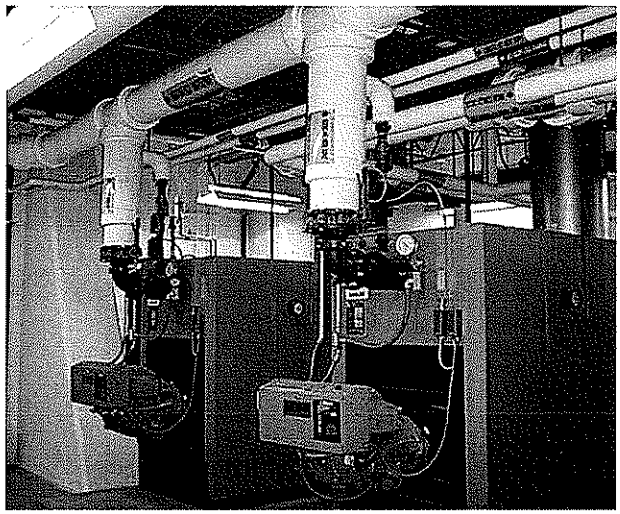
Museum of Culture & History

Project Description

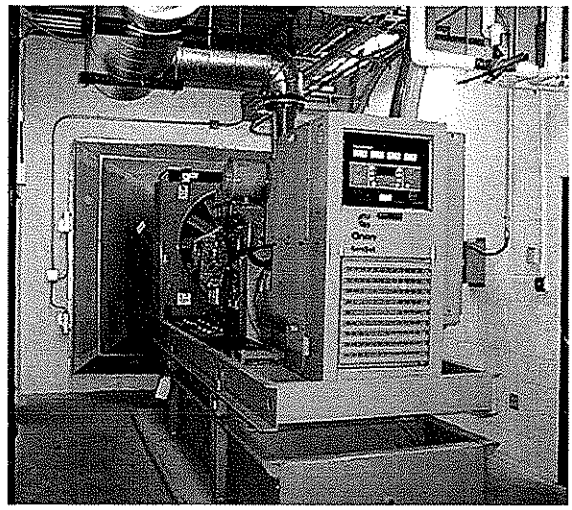
ZDS principals and personnel have been involved in numerous design and recommissioning projects for WV State Capitol Complex while at ZDS and through other employment over their careers. These projects required the engineering planning, design, supervision, preparation of construction documents, specifications, 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 and were contracted again in 2008 for providing fire alarm and fire protection upgrades.

Lack of humidity control damaged many of the State's priceless artifacts. Books and other State collections were deteriorating rapidly due to lack of proper control of temperature, humidity, and

filtration. The occupants had also experienced allergic reactions and discomfort from the long term high humidity conditions. ZDS identified and designed the solutions. Conserving energy without sacrificing comfort or indoor air quality was a major consideration. The design included converting an all electric resistance heating system to natural gas, comprehensive DDC controls for central monitoring and control, converting 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 were estimated to save near $153,000 annually over the costs of operating the old system. The fire alarm and sprinkler renovations project is scheduled to be completed in 2010.

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:	**$6,800,000**
Size:	**228,500 FT^2**
Completion	**2001 for HVAC, 2010 for FA/Sprinklers**

WYK

associates, inc

architecture

planning

WYK's List of Repeat Clients

WYK Associates, Inc.

WYK associates, inc
architecture
planning

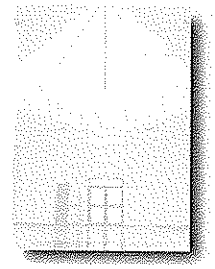
WYK's List of Repeat Clients
West Virginia

Harrison County Bank

Davis Memorial Hospital

Kappa Sigma Pi

Citizens' National Bank of Elkins



World Vision

Dominion Exploration and Production

Harrison County Board of Education

North Central West Virginia Airport

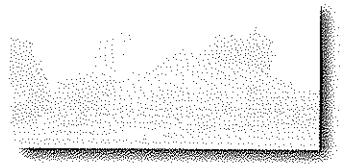
Lewis County Board of Education

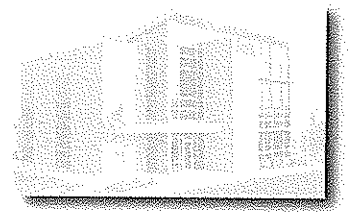
Fairmont State University

Corhart Refractories

West Union Bank

Harrison County YMCA



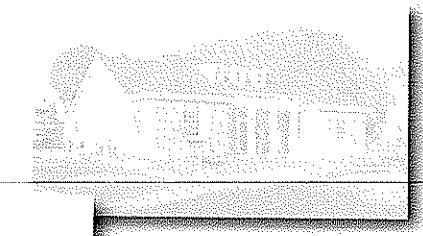


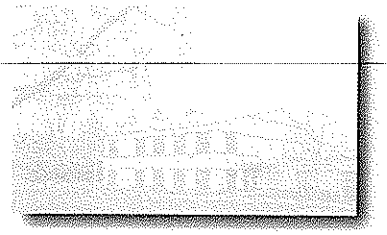
United Hospital Center

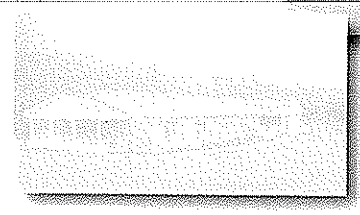
Harrison County Commission

Harrison County Development Authority

United Summit Center







Daisy Development

ARC of Harrison County

City of Bridgeport

Webster County EDA

City Neon

Stockmeir Urethanes

Toothman & Rice

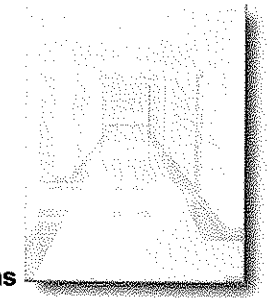
Harrison County Senior Citizens

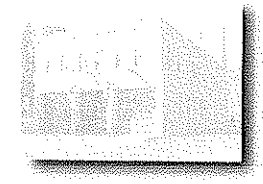
City of Clarksburg

Barbour County Board of Education

Greathouse Funeral Home

Harrison County Courthouse Renovations





WYK

associates, inc

architecture

planning

References

WYK Associates, Inc.

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architecture
planning

References

WYK Associates, Inc.

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