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WV PURCHASING DIVISION

405 Capitol Street, Upper Atrium Charleston, West Virginia 25301 Phone: 1.304.346.0565

Fax: 1.304.346.1522 Web: www.silling.com



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February 18, 2009

Ms. Krista Ferrell West Virginia Division of Purchasing 2019 Washington Street, East P.O. Box 50130 Charleston, West Virginia 25305-0130

Re: RFQ# GSD096435

Dear Ms. Ferrell:

Silling Associates is pleased to submit our expression of interest to provide architectural and engineering services for the chilled water system project in Building 9 located at the West Virginia State Capitol Complex.

Silling Associates, Inc. is a century-old Charleston, West Virginia architectural design firm with a demonstrated history of successful projects for the State of West Virginia, including the original design of the WV Science and Cultural Center, a WV State Capital Complex Master Plan, numerous projects for the West Virginia Division of Corrections, East Wing renovations for the WV Supreme Court of Appeals, and the proposed West Virginia Lottery and Revenue Center.

Our design team includes **Scheeser Buckley Mayfield** (SBM), a regional leader in mechanical, electrical, plumbing, and civil engineering with extensive state governmental, higher education, and hospital experience. Over the last ten years, Silling and SBM have collaborated together on a variety of project types throughout WV. In fact, SBM has maintained an incredible record of performance working throughout West Virginia for clients such as the WV Division of Corrections, West Virginia University, Marshall University, Thomas Memorial Hospital, Cabell Huntington Hospital, and many others.

Particularly noteworthy and relevant to this Expression of Interest is SBM's successful involvement with a number of similar projects including: Kent State University Chiller Plant, Mount Olive Correctional Complex – New Electrical Substation, Chiller Plant Upgrades at St. Mary's Medical Center, Marshall University Biotechnology Center Chiller Plant, and Cabell Huntington Hospital's Bed Tower Chiller Plant, to name a few.

Collectively, our design team offers the State of West Virginia the leadership of one of the state's leading and most reputable architectural firms, the benefit of Scheeser Buckley Mayfield's extensive knowledge and experience working with large and offen complex chiller plants (new construction and upgrades), and our demonstrated record of design excellence, project collaboration, and unparalleled client service.

As can be seen from the following pages, we offer a highly talented and qualified team that is poised to present creative, cost-effective ideas that will enhance the State Capitol Complex for years to come.

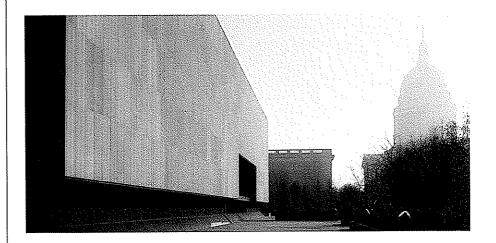
We look forward to discussing in greater detail our qualifications and approach to this project.

Sincerely,

SILLING ASSOCIATES, INC.

Jody S. Driggs, AIA, Principal SILLING ASSOCIATES, INC.





4.2.1 CONCEPT

Our understanding of the Building 9 project is as follows:

- Install chillers to serve Building 9.
- Modify the existing Capitol Complex Chilled Water piping coming into Building 9 so that the Capitol Complex Chilled Water piping can be used as an automatic emergency backup.
- Install two standby boilers.
- Expand the boiler room as required to accommodate the new equipment.

If we were successful in obtaining the commission for this project, the short list of methods of addressing the concerns and concepts would be as follows:

- 1. Work closely with the State to truly understand the project scope, needs, and goals, followed by the development of potential schematic design solutions which will be presented to the State for review and approval.
- Develop a cost estimate(s) of the aforementioned schematic plan(s) based on our most recent and relevant chiller plant experience. The Design Team will continuously work to provide any necessary value engineering and/or alternative concepts to meet the required budget as set forth by the State.

The Design Team has a broad range of experience in chiller and boiler plant design. This experience will be helpful with steps 1 and 2 above. However, the design team wants the ultimate solution to be one that the Owner has 100% bought into and believes to be the best solution for the project.

From a technical standpoint, SBM's engineering leadership offers an unparalleled understanding of boiler plant design, as well as the technical knowledge required when decoupling a building from a central plant while maintaining an emergency connection.

The Silling/SBM team has worked together on many projects and, if selected, would serve the State well in providing a well-conceived, practical, and highly functional design solution to the Building 9 Chiller Plant project.



4.2.1 FIRM TEAM/QUALIFICATIONS

A. Project Executive

Jody S. Driggs, AIA, Principal Silling Associates, Inc. 405 Capitol Street, Upper Atrium Charleston, WV 25301 1.304.346.0565 jdriggs@silling.com

B. Summary of Key Personnel Assigned to the Project

Silling Associates, Inc.—Architecture

Jody S. Driggs, AIA, Principal Role: Project Architect

Sean Simon, AIA, Project Manager

Role: Construction Contract Administration

Scheeser Buckley Mayfield, Inc.—Mechanical, Electrical, & Civil Engineering

Mike Wesner, PE, Principal Role: Lead Mechanical Engineer

Jim Eckman, PE, Principal Role: Lead Electrical Engineer

Kirby Stoller, PE, LEED AP Role: Mechanical Engineering

Kevin Noble, PE, Principal Role: Lead Civil Engineer

C. Design Team Consultant

Silling's MEP engineering consultant, Scheeser Buckley Mayfield, is a regional leader in MEP design with extensive project experience in the state of West Virginia. They have a highly successful track record of providing creative, cost-effective design solutions, especially with larger, complex chiller plant projects. Based out of Akron, Ohio, SBM has routinely served clients such as the WV Division of Corrections, Marshall University, Thomas Memorial Hospital, Cabell Huntington Hospital, and St. Mary's Medical Center, to name just a few.



D. ABILITY TO HANDLE THE PROJECT

With a combined staff of 54 design professionals, Silling and SBM offers all of the required resources, technical expertise, and production capabilities to complete the project on time and within budget. Both firms maintain an incredible record of budget and schedule performance, responsiveness, and accountability in the state of West Virginia.

E. PROPERTY OF THE AGENCY

We accept and have a full understanding that the any and all of the work produced as a result of this contract will become property of the Agency and can be used or shared by the Agency as deemed appropriate.

F. LOCAL, STATE, AND FEDERAL REGULATIONS

Both Silling and SBM have a proven record of formulating designs that meet all applicable local, State, and Federal regulations, including building and life safety code requirements and ADA requirements.

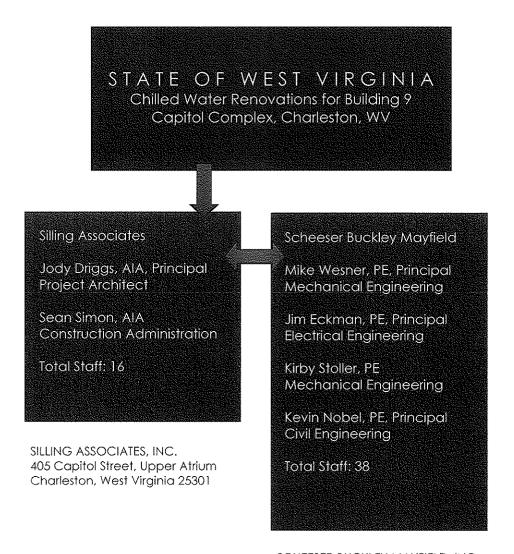
G. LITIGATION/ARBITRATION PROCEEDINGS

There are no litigation or arbitration proceedings involving our respective firms, including any vendor complaints filed with the State's Purchasing Division.



4.2.3 PROJECT ORGANIZATION

A. Organizational Chart



SCHEESER BUCKLEY MAYFIELD, INC. 1540 Corporate Woods Parkway Uniontown, Ohio 44685



B. PROPOSED PROJECT SCHEDULE

The Team of Silling Associates and Scheeser Buckley Mayfield have the ability to deliver the project per the mutually agreed schedule.

Proposed Schedule and Key Phases:

Once awarded the commission, the team would start to work on the project while the Design contract is being prepared and approved. This action will speed up the project delivery. We recognize that proceeding in this fashion has some risk to the design firm but we believe that the risk is minimal and the quick action will be a benefit to the project.

1. Schemafic Phase Work – Four Weeks:

- Meet with the owner to determine budget and get a "down load" of what the Owner's ideas are for the project.
- Gather all existing drawings and all other related information that will be needed to determine the project scope.
- Owner to provide electrical billing information so that electrical engineers can determine if the
 existing electrical service can support the new mechanical equipment. A new electrical
 service has major cost implications.
- Visit the site to document the existing conditions
- Prepare Schematic narrative and one line diagrams. These narratives and one line diagrams are key to developing accurate cost estimates and building consensus on the project scope and layout. The narrative will include estimated equipment capacities.
- Prepare Schematic cost estimates.
- Prepare a schematic code review narrative outlining what state and national codes apply to this project and what specific sections of the code are related and impact this project.
 Example: IBC Chapter 11 – Refrigeration.
- Assemble Schematic material and review with Owner
- Time for design team to prepare schematic work from date of award of contract: 3 weeks.
- Time allowed for Owner to review material and respond to schematic material: 1 week.

2. Design Development Phase Work – Five Weeks:

- Incorporate Owners schematic review comments into the plans.
- Develop expanded mechanical room plans (if needed). To speed up the process this work shall be shared with the owner during the schematic phase of the work so that the work done under the Design Development Phase has a head start on what the ultimate solution will be. This will help in locating mechanical equipment in the expanded space.
- Develop the project technical specifications to contract document review level so that this information can be shared with the owner. The owner will most likely have some very specific items that need to be included in the specifications. So it is import to get this information to the Owner in a timely manner to obtain their review and comments.
- Develop the project front end documents to contract document level for owner review.
- Develop the HVAC plan views, details, piping flow diagrams and temperature controls so that they can be reviewed in detail with the Owner during the design development review meeting.
- Develop the Electrical floor plans, details, and one line diagrams so that they can be reviewed in detail with the Owner during the design development review meeting.



- Update the code review narrative.
- Update the construction cost estimates.
- Develop Alternates if needed to match project scope with project budget.
- Assemble the Design Development material and review with Owner
- Time for design team to prepare Design Development work from date of approval of schematic work; 4 weeks.
- Time allowed for Owner to review material and respond to Design Development material: 1 week.

3. Contract Document Phase Work - Four Weeks:

- Incorporate Owners Design Development review comments into the plans.
- Finalize and complete the Architectural expanded mechanical room plans and details.
- Complete Project Technical Specifications.
- Complete Project Front End Documents.
- Finalize project alternates.
- Complete HVAC drawings.
- Develop the Electrical floor plans, details, and one line diagrams so that they can be reviewed in detail with the Owner during the design development review meeting.
- Update the code review narrative.
- Update the construction cost estimates.
- Assemble the Contract Documents and review with Owner.
- Time for design team to develop the Contract Documents from date of approval of Design Development submittal: 3 weeks.
- Time allowed for Owner to review material and respond to Design Development material and for the Design team to assemble the bidding documents: 1 week.

4. Project Bid Phase and Contract Award - Nine Weeks

5. Project Construction Phase - Thirty Six Weeks

- Mobilization and Shop Drawings Three Weeks
- Mechanical Room Expansion Twelve Weeks
- Major Equipment procurement Total elapsed time from award of contract Twenty Weeks. Five Weeks after a. and b. completed above.
- Mechanical and electrical work to be started concurrently with a, b and c above to the date
 of substantial completion Thirty Two weeks from date of contract award.
- Time from date of substantial completion to date of project completion Four Weeks. During this time period the equipment shall be commissioned to the extent that the weather will allow. Final commissioning shall occur when the weather is suitable.

6. Estimated Time Line Summary:

- Design Time: Thirteen Weeks.
- Project Bidding and Contract Award: Nine Weeks.
- Project Construction and Final Completion: Thirty Six Weeks.
- Total Time from design award to project completion: Fifty Eight Weeks.

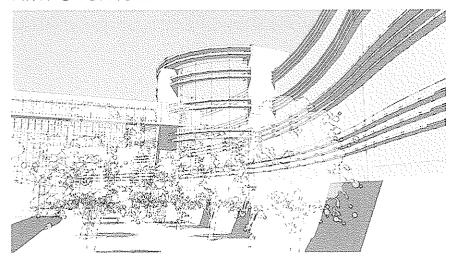


4.2.4 DEMONSTRATED EXPERIENCE WITH SIMILAR PROJECTS

- A. Please see attached project experience contained within this Expression of Interest.
- B. Please see attached references contained within this Expression of Interest.



Firm Overview



OUR HISTORY

Architectural success is measured by vision and an unwavering dedication to excellence. This axiom was the philosophical birth of SILLING ASSOCIATES, INC. by H. Rus Warne in 1902. Following the lead of partners like Warne and its namesake, Cy Silling, the firm today has the proud distinction of being the oldest continuing architectural firm in West Virginia and one of the oldest in the eastern United States. Throughout, Silling Associates, Inc. has woven itself into the very fabric of West Virginia, providing planning and architectural services that have touched the lives of virtually every citizen and delivering landmark projects collectively defining its built environment.

A past president of Silling used to say that every West Virginian has either banked, lived, worked, cheered, slept, served time, got well, learned arithmetic, borrowed a book, paid taxes, or parked in one of our buildings. Whether through its early century beaux arts and neo-classical collection, its mid-century modern and post-modern portfolio, or its current contextual vocabulary, Silling has always been renowned as one of the premier architectural firms in the state. Today, Silling Associates continues to have a powerful impact on the region's architectural landscape through fresh, yet solid design and responsible project management.

DESIGN PHILOSOPHY

At Silling, design drives everything that we do in architecture, planning and interiors. We believe that design fulfills and propels each client's goals and aspirations; that design articulates spaces to new levels of effectiveness; that design engages, inspires and fulfills; and that design elevates the human experience.

We begin each project by listening to our client. We listen to understand a client's vision, goals and objectives. We believe the concept of design in architecture applies not only to sketches, plans, specifications, and the building process, but to every aspect of the project. We design each project in a synthesis of everything that we heard from a client, and of our own professional design expertise---working collaboratively and uniting all professional disciplines in the process to create truly integrated design solutions. We deliver each project with responsive service and technical excellence to the complete satisfaction of our client, which is the ultimate measure of our success. This is why you can depend on Silling to walk you through every phase of the process.

From our firm's inception over 100 years ago, Silling has remained committed to four essential principles: listening to the needs of our clients, understanding the challenges they face, solving their problems, and producing high quality results. These guiding principles are contributing factors to the foundation and success of every project Silling undertakes. We are dedicated to providing outstanding analysis, planning, design, and construction for every one of our projects.



Our Services



Silling Associates, Inc. offers clients a comprehensive list of Architectural, Planning, and Interiors services. Working in concert with some of region's premier engineering design consultants, Silling provides exceptional leadership from the earliest stage of planning through to final documentation, construction, and building operation.

- Pre-design
- Feasibility Studies
- Master Planning
- Architectural Programming
- Architectural Design
- Construction Contract Document Production
- Bidding & Negotiating
- Design-Build & Negotiated Contract Delivery
- Construction Contract Administration
- Code Compliance & Review
- Site Design
- Sustainable Design & LEED Services
- Interior Design
- Interior Space Planning
- Interior Architectural Design, Detailing, & Documentation
- Furniture, Furnishings Selection, Documentation, & Specification



LEED & Sustainable Design



Silling Associates provides a staff with Professional Accreditation by the U.S.Green Building Council (USGBC) in coordination with the Green Building Certification Institution (GBCI) and LEED AP for New Construction and Major Renovations. The LEED (Leadership in Energy and Environmental Design) Green Building

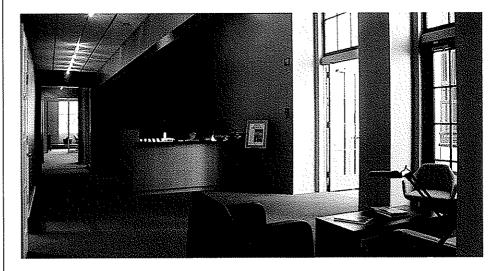


Rating System provides a set of performance standards for certifying the design and construction phases of commercial, institutional buildings and high-rise. The specific credits in the rating system provide guidelines for the design and construction of buildings of all sizes in both the public and private sectors.

The intent of LEED for New Construction is to assist in the creation of high performance, healthful, durable, affordable and environmentally sound commercial and institutional buildings. As a LEED AP firm, Silling has distinguished itself as having the knowledge and skills necessary to participate in the design process, to support and encourage integrated design, and to streamline a buildings LEED application and certification process.



Our Staff



Thomas Potts, AIA Principal

Jody Driggs, AIA Principal

Edward Weber, AIA, LEED AP Senior Associate

Michael Moore, Associate AIA Director of Business Development

Sean Simon, AIA
Construction Contract Administration

Martin Klapproth, Associate AIA Project Manager

Jeremy Jones, Associate AIA Designer, Project Manager

Carmen Wong, Associate AIA Designer, Project Manager Jason Rutledge, Associate AIA Senior CAD Technician

Kim Ellis, Associate AIA Interior Designer, CAD Support

James Thompson, Associate AIA CAD Technician

Uriah Burgess, Associate AIA CAD Technician

Josiah Burgess, Associate AIA CAD Technician

Tamerra Justice Administrative Assistant, Interior Design

Karl Blake Accounting

Rachel Garton Administrative Assistant, Receptionist





Professional Resume Jody S. Driggs, AIA, Principal

EXPERIENCE & SIGNIFICANT RESPONSIBILITIES

Mr. Driggs has twelve years' experience including all phases of architectural programming, design, and contract document production. As a designer, Mr. Driggs has contributed greatly to the development of design concepts and options on all projects within the firm. He is particularly talented in the creation of architectural images and form appropriate to a given design context. His experience at the Urban Design Institute in Chattanooga, Tennessee gives him a unique perspective of the urban character and dynamics of each design. He is skilled at the use of three-dimensional computer modeling as a valuable study tool for both the client and the design team in search of a fresh and creative design solution.

As a project architect he is responsible for working closely with the owner to establish clear programmatic needs and design criteria. He is responsible for developing responsive schematic site plans, floor plans, and elevations that blend the meaning and spirit of the owner's program with site and cultural forces. Mr. Driggs' recent experience as Project Architect/Manager includes the St. Timothy Lutheran Church, the award-winning James C. Wilson Student Union at West Virginia State University, West Virginia Lottery Headquarters, Martinsburg City Hall, McDowell County National Banks, 2006 West Virginia State University Campus Master Plan, West Virginia University Tech Student Center, and Bible Center Church.

EDUCATION:

Bachelor of Architecture
The University of Tennessee 1996

LICENSES & CERTIFICATIONS:

Licensed to practice architecture West Virginia (2001), Kentucky (2004), Ohio (2005), Maryland (2005), Pennsylvania (2005)

PROFESSIONAL AFFILIATIONS:

Treasurer, WV Chapter, American Institute of Architects

AWARDS & RECOGNITION:

2005 AIA WV Merit Award for Achievement in Architecture, James C. Wilson Student Union, West Virginia State University * Goodstein and Associates Technical Drafting Award for Achievement and Excellence in the Field of Architecture * Honorable Mention, Fourth Year Design Competition, Thesis Project Letter of Excellence, University of Tennessee * The State Journal "40 Under 40" Award Winner - 2006 * West Virginia Executive "Young Gun" Award-Winner, 2007





Professional Resume Sean S. Simon, AIA Construction Period Service Manager

EXPERIENCE & SIGNIFICANT RESPONSIBILITIES

Mr. Simon has sixteen years' experience involving all phases of architectural programming, design, construction document production, and construction contract administration. From 1998 through 2007, Mr. Simon operated his own architectural practice (Sean S. Simon, AIA Architects) providing comprehensive design and project management services for a variety of project types including banking, commercial, government, education, health care, religious, and residential.

Sean joined Silling Associates in 2008 as a Construction Period Service Manager, working closely with the firm's production staff throughout the construction document phase and providing construction contract administration services. He will facilitate pre-construction meetings providing clear definition of project goals and owner expectations, review all contractor submittals, product samples, and shop drawings for conformance to the contract drawings and specifications, attend weekly or bi-weekly progress meetings to maintain clear communication with builders, observe installation of materials and systems to verify their conformance with the design intent, and continually monitor the project schedule.

EDUCATION:

Bachelor of Architecture
The University of Tennessee, 1992

LICENSES & CERTIFICATIONS:

Licensed to practice architecture in West Virginia, Maryland, Ohio, Virginia, and Pennsylvania.

PROFESSIONAL AFFILIATIONS:

American Institute of Architects, West Virginia Chapter (AIAWV)

CIVIC INVOLVEMENT:

Cub Scoutmaster for Pack 434 and Pack 435



Our Markets



JUSTICE ARCHITECTURE
Courts, Governmental Administration, Jails & prisons



CORPORATE ARCHITECTURE
Corporate and Professional Offices



WORSHIP ARCHITECTURE
Churches, Places of Worship, Religious Education



WELLNESS ARCHITECTURE
Hospitals, Health Care Centers, Medical Offices



EDUCATIONAL ARCHITECTURE Colleges and Universities



RESIDENTIAL ARCHITECTURE
Private Residences and Urban living



Select Project Experience

PLACES FOR JUSTICE & SAFETY

Allegany County District Court Charleston Work Release Center Fairmont City/County Complex Greenbrier County Judicial Center Hampshire County Courthouse Hampshire County Judicial Center Huntington Work Release Center **Huttonsville Correctional Center** Industrial Home for Youth Jefferson County Judicial Center Martinsburg City Hall Martinsburg Correctional Center McDowell County Courthouse Medina County Courthouse Mineral County Courthouse Mineral County 911 Center Morgan County Courthouse Mount Olive Correctional Complex Pruntytown Correctional Center Putnam County Courthouse Putnam County Judicial Building Raleigh County Judicial Center St. Marys Correctional Center Stevens Correctional Facility Tucker County Courthouse Wyoming County Courthouse Annex

PLACES FOR WORKING

Ashley Home Furnishings Bank of Gassaway Charmoo Building Chesapeake Energy Regional Field Offices Chesapeake Energy Regional Headquarters Greenbrooke Office Building First National Bank of Covington Flaherty, Sensabaugh, & Bonasso Law Offices Huntington Banks FTP Boardroom Huntington VA Federal Credit Union Jackson & Kelly Law Offices McDowell County National Banks National Bank of Commerce Office Tower Offutt, Fisher, & Nord Law Offices Peoples Bank of Mullens Pleasants County Bank Silling Associates Incorporated Spilman, Thomas, & Battle Law Offices Star USA Federal Credit Union

Underwood Law Offices
West Virginia Lottery and Revenue Center
West Virginia Supreme Court of Appeals

PLACES OF WORSHIP

Beverly Hills Baptist Church
Bible Center Church
Elizabeth Memorial United Methodist Church
Elkview Baptist Church
St. John's United Methodist Church
St. Matthew's Episcopal Church
St. Timothy's Lutheran Church

PLACES FOR LEARNING

Bluefield State College-Academic Center Marshall University-Student Rec Center Study Marshall University-Visual Arts Center New River CTC-Facilities Master Plan New River CTC-Beckley Campus New River CTC-Greenbrier Co. Campus New River CTC-Nicholas Co. Campus New River CTC-Mercer Co. Campus WV State University-Athletic Facilities Plan WV State University-Campus Master Plan WV State University-James C. Wilson Union WV State University-Fleming Hall WV State University-Campus Media Center WV State University-Downtown Media Center West Virginia University Coliseum WVU Tech Student Center

PLACES FOR HEALING

Huntington VA Medical Center Skaff Medical Office Center Soulsby Medical Office Center WVU Medical Center

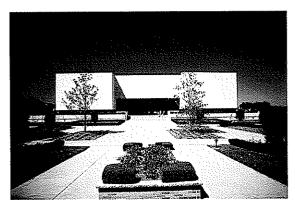
OTHER PROJECTS

10 Arlington Avenue Residence
Charleston Civic Center Coliseum
Charleston Convention Center
Charleston Riverfront Redevelopment
Imperial Towers
Moses Private Residence
WV Air National Guard-Civil Engineering Facility
West Virginia Science & Cultural Center



West Virginia Science & Cultural Center New State Cultural Center

A dramatic part of the State Capitol Complex in Charleston, the West Virginia Science and Cultural Center serves as an anchor for the state's arts, crafts, and culture. Housing the State Library Commission and the Department of Culture and History, the magnificent limestone structure also contains a museum, a crafts shop, a 468-seat theatre, and reference libraries.

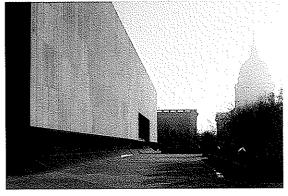






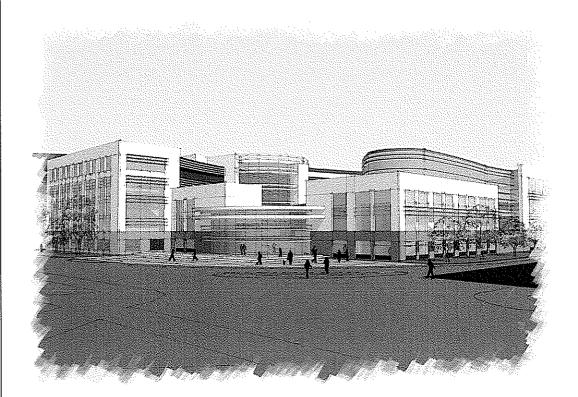








West Virginia Lottery and Revenue Center New Governmental Office Center

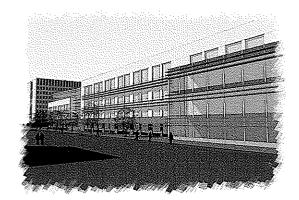


Silling Associates was selected to program and design a new facility that will eventually serve as the headquarters for the West Virginia Lottery, Racing Commission, Tax Department, State Auditor, and the Insurance Commission.

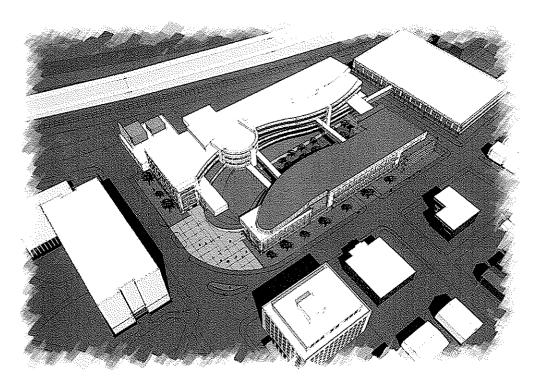
Silling has worked closely with the West Virginia Lottery leadership and developed numerous site, building, and floor plan studies for the proposed new facility. The images on this page reflect one of the aforementioned concept studies involving the potential location of a 4-story facility and parking garage at the corner of California Avenue and Washington Street at the State Capitol Complex.

The proposed 250,000 - 300,000 square foot governmental center is the first major design and construction project to take place at the State Capitol Complex in over 25 years.

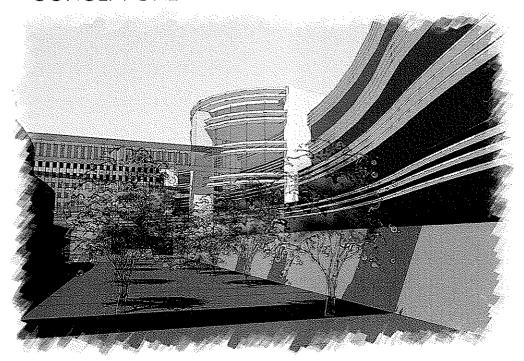
CONCEPT ONE







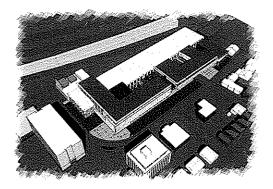
CONCEPT ONE





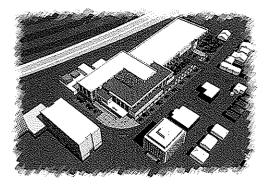
CONCEPT TWO

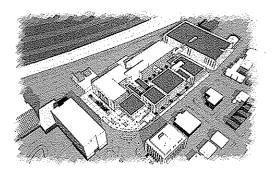
CONCEPT THREE

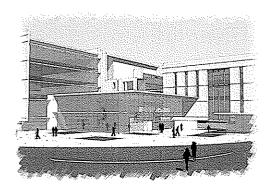






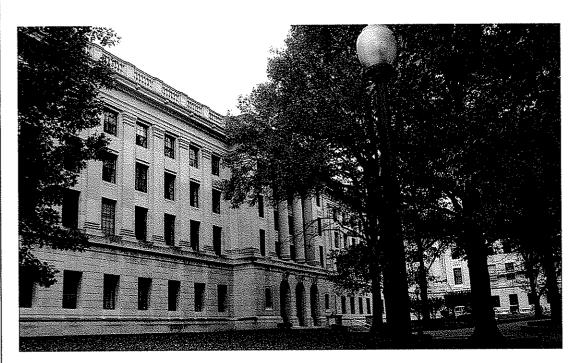




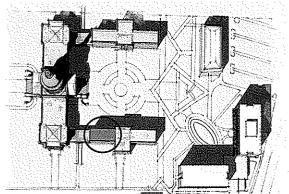


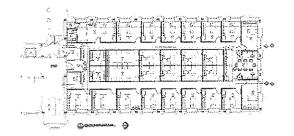


WV Supreme Court of Appeals Renovations, East Wing of the Capitol Complex



This project involves the renovation of approximately 5,000 square feet of office space on the fourth floor East Wing of the West Virginia State Capitol Building. The program includes 30 new offices and assistant lawyers to common space for the Supreme Court Justices, clerks, and workers comp attorneys. The goal of the project is to create a working environment which is lighted naturally and affords the greatest amount of individual control of heating/cooling and light levels as well as acoustic isolation between spaces. The space will be entirely gutted and renovated with new partitions, HVAC, lighting, and finishes. A private bathroom and group kitchenette will be added to the facility. Construction is underway and will be complete in May of 2009.







St. Marys Correctional Center Adaptive Reuse of Former Mental Hospital

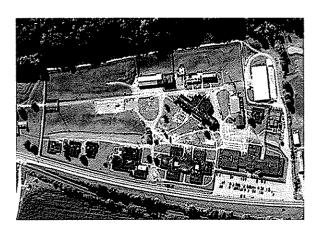
The St. Marys Correctional Center is a low medium security facility that was converted in 1998 from an existing state facility for the mentally and physically handicapped. Silling was responsible for the design of renovations to the existing 13 major buildings on the campus, and underground utilities in phases as funding was secured.

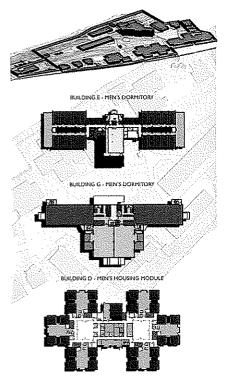
Phase I consisted of renovations to four cottage dormitories, the modular dormitory, and the laundry. The existing facilities were upgraded from non-secure facilities and involved interior renovations, MEP, as well as physical and electronic security improvements. Construction was completed in 1998.

Phase II involved the placing of all utilities below grade with a campus duct bank loop routing power and communications; new water supply and sewer lines; and high mast lighting. Construction was completed in 2001.

Phase III involved renovations to the North/ South Dormitory. Renovations to the existing building included interior upgrades, MEP, and physical and electronic security.

Phase IV consisted of the addition and renovation of the existing Dining Hall, increasing the seating capacity to 200 inmates. Renovations to the existing building included interior upgrades, MEP, and physical and electronic security.





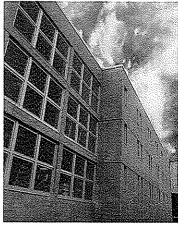


Huttonsville Correctional Center Dormitory Expansion and Renovations

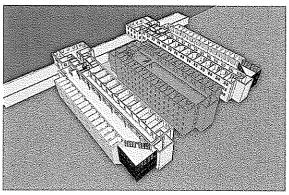
Completed in early 2007, the Dormitory Addition and Renovation project involved a creative lateral expansion of the two three-story dormitory wings and converting them from open, dormitory style housing into more secure two- and six-man housing cells. The primary objective of this phase is to add 200 beds while increasing both staff efficiency and safety. The conversion increases each floor from 45 to 80 inmates, while maintaining current staffing patterns and introducing effective direct supervision. Six-man cells are developed inside the footprint of the 1938 section with steel cell walls that can be accommodated by the existing structural system. Two-man CMU cells are developed within the new footprint. All cells are wet with electronically controlled stainless steel combination toilet/lav units that minimize utility maintenance costs. Secure direct access recreation areas support effective management, allowing inmate outdoor access without mixing population with other housing

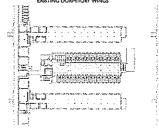
As second phase of the project included the replacement of two existing 1975 fuel oil 600hp Cleaver Brooks boilers and related support, including electrical service, deaerator tanks, and water softeners. A third phase of the project involved the replacement of the institution's kitchen concrete floor slab, which had suffered extreme deterioration, including cracked beams, erosion and spalling of the concrete from the joists, and exposed and rusted steel reinforcing. Our design solution included the temporary closure of the kitchen during structural repairs, the removal and temporary storage of existing kitchen equipment, the demolition and replacement of nine structural bays with a new elevated slab, new kitchen flooring, and new electrical conduit and mechanical piping.

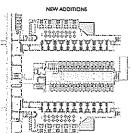
Construction cost was \$18,300,000. The project was completed in April of 2007.













Hampshire County Judicial Center New Justice/Courts Center

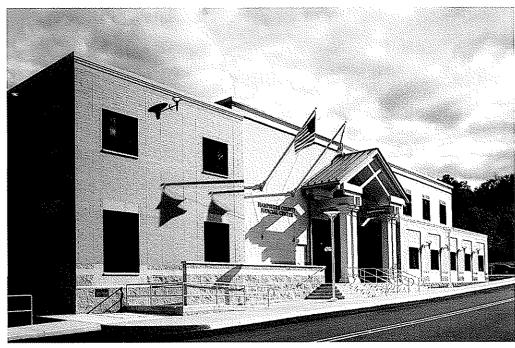


Silling Associates was commissioned by the Hampshire County Building Commission to design a new courts facility in the heart of downtown Romney. The new 34,000 square foot, two-story judicial center will include the County's Circuit Court and Clerk, Family Court, Magistrate Court and Clerk, and the Prosecuting Attorney. The design creates a modern and secure courts center that efficiently separates public, staff, and detained circulation throughout the building. The project involved a close collaboration with the County, the WV Supreme Court, the State Historic Preservation Office, the Building Commission, and the city of Romney.

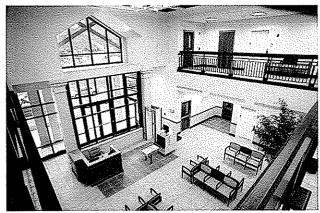
Architecturally, the building responds to both the historic character of downtown Romney and the historic Courtnouse with its own blend of materials, scale, and detail. A second phase of the project includes the renovation of the historic courthouse and adjacent county buildings to improve and expand the county's administrative departments. Design issues addressed in Phase 2 include interior renovations, MEP systems upgrades, data/ telecommunications improvements, ADA compliance, and the modernization of records storage capabilities.



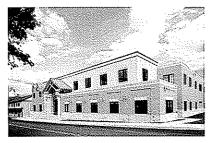












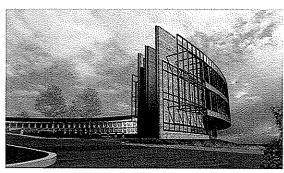


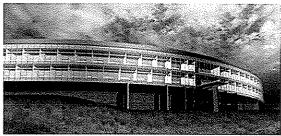
Chesapeake Energy Eastern Regional Headquarters New Corporate Office Center

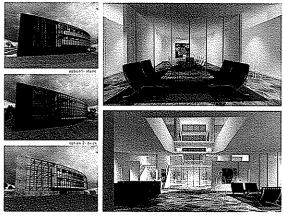
In 2007, Chesapeake Energy, an Oklahomabased leader in the natural gas exploration field, planned to locate a new 121,400 square foot regional headquarters in the Northgate Business Park of Charleston, West Virginia. They hired Oklahoma City's Elliott + Associates Architects to team with Silling to produce a truly state-of-the-art facility.

The center of the 20-acre site is a hilltop that will be punctuated with a monumental, spiraling sculpture to represent a spinning drill. A series of concentric circles will radiate outward from the round sculptural base and culminate in the 850-foot semi-circular arc of the building. The radiating circles contain terraced parking and landscaped elements including a large semi-circular green space giving the campus a park-like setting. The campus is bisected with an elevated walkway leading to the center of the buildings elegant lobby. Rotation is emphasized in the façade of the building where office walls shift from floor to floor creating a dynamic visual effect. The upper two stories are office spaces, lifted above ground to float in space creating a light and airy feeling. Elevating the office floors also gives people a birds' nest view of the surrounding tree canopy and a panoramic view of the hillside.

The first two floors or base of the building will contain a restaurant and fitness facility and will service other functional needs such as mechanical equipment, storage, filing and computer server rooms. This allows the base to have a solid appearance with fewer windows and can be made with concrete or masonry materials to compliment nearby sandstone cliffs. At the terminus of each end of the curving building, concrete and steel fin walls extend out, acting as a visual "blur" from the motion caused by the spinning drill bit as it penetrates the earth's surface. The notion of "blurring" gives the ends of the building the appearance of cutting into the earth at high speed and the concept of rotation becomes architectural form. This is a fitting image for Chesapeake, which continues to use the pin point precision of its drilling operations to search for new energy reserves. The new facility is planned to receive a Silver LEED Certification.

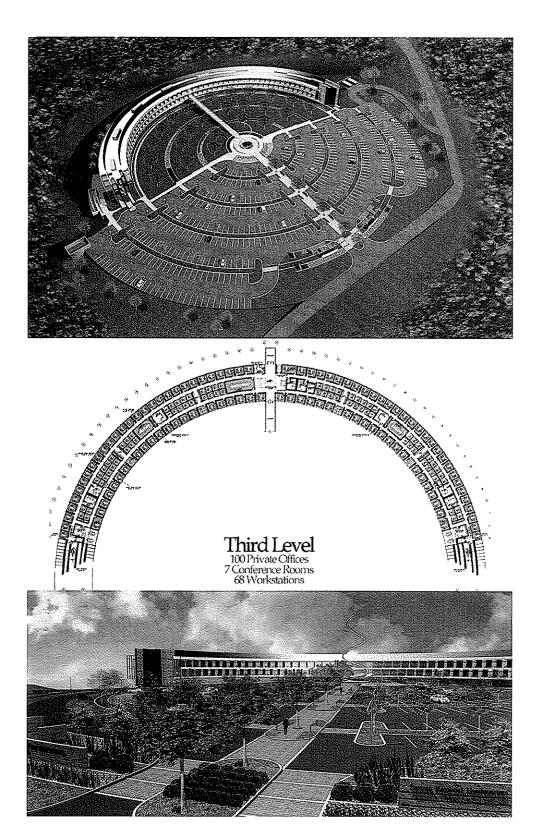








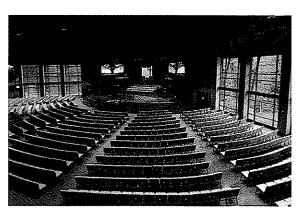






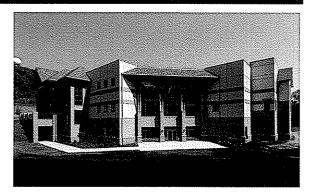
Bible Center Church—Phase I New Worship Center

Silling Associates, in collaboration with CDH Partners (Marietta, GA) has completed a multiphased development plan to relocate the Bible Center Church family from their current location. In total, the proposed church campus includes the sensitive placement of more than 250,000 square feet of worship, fellowship, education, and administrative space on a picturesque 90+ acres. The first phase of this development includes approximately 60,000 square feet of worship, Christian education; administrative support space; 500 surface parking spaces; a new access drive; plazas and landscaping; and site infrastructure for future development.



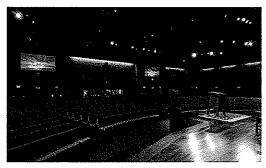


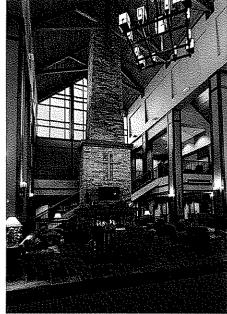
The central component of phase one includes a 1200-seat multipurpose sanctuary that serves the needs of the initial relocation. The grand lobby space offers a window to the outdoors with its large fenestration and clerestory features. A large fireplace in the lobby welcomes you in for a cup of coffee and fellowship. The worship space is designed to continue the elegant lodge-like atmosphere with its richly textured fabrics, stone, and warm natural millwork. The phase two strategic plan expands the educational and gymnasium space, A portion of this phase provides for administrative needs. Phase three includes a 2200-seat worship center, a small chapel, and additional room for the education ministry.

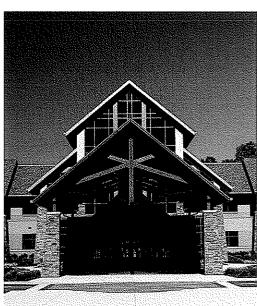








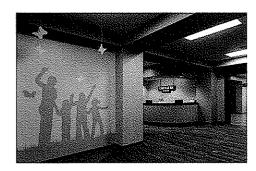




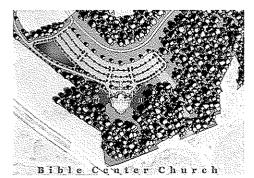


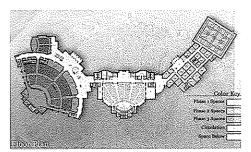
Contact: Mr. Lee Walker, Church Administrator Bible Center Church 1111 Oakhurst Drive Charleston, WV 25314 304.346.0431

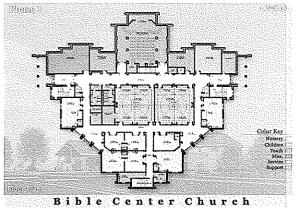


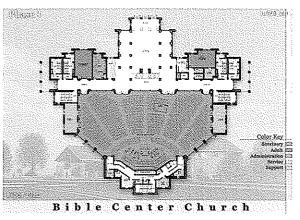


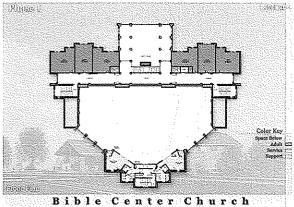






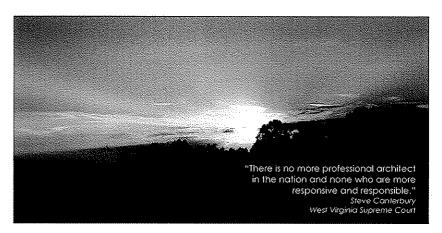








References



Mr. Steve Canterbury, Admin. Director WV Supreme Court Capitol Complex Building 1, Room E-100 Charleston, WV 25305-0830 304.558.0145

Mr. John Musgrave, Director West Virginia Lottery P.O. Box 2067 Charleston, WV 25327 304.558.0500

Mr. Jim Rubenstein, Commissioner WV Division of Corrections 112 California Avenue, Room 300 Charleston, WV 25305 304.558.2036

Mr. Walt Davis, Chairman Hampshire County Building Commission 405 West Main Street Romney, WV 26757 304.496.7451 540.539.1909

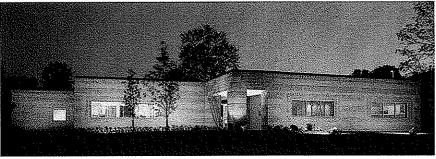
Mr. Glen R. Stotler, Commissioner Morgan County Commission P.O. Box 28 Berkeley Springs, WV 25411 304.258.8540



Offering Mechanical, Electrical, Civil and Telecommunication Consulting Engineering Services

Scheeser*Buckley* Mayfield, Inc., is an Akron-based Consulting Engineering firm. The firm has enjoyed a steady growth in clients and geographical area served throughout its history. Originally serving clients only in the Akron and Canton areas, the firm now serves clients throughout Ohio and surrounding states.

The firm was established in 1959 by Walter L. Scheeser and Edwin J. Buckley, specializing in the design of mechanical systems for the construction industry. On August 1, 1975, the firm was incorporated as Scheeser and Buckley, Inc. William B. Miller. Jr. became a principal



in the firm in 1978 and Gary E. Starr became a principal in 1982. In 1983, the name of the firm was changed to Scheeser*Buckley*Miller*Starr, Inc. Upon the retirement of Mr. Buckley in 1985, Mr. Miller assumed the position of President and Mr. Starr the position of Executive Vice President. Mr. Miller retired in 1999 and Mr. Starr assumed the position of President. In addition, Michael P. Wesner, P.E., James E. Eckman, P.E., and James P. Kulick, P.E. became Vice Presidents of Mechanical Engineering and Electrical Engineering and Personnel respectively. In 2001, Kevin M. Noble, P.E. and Marlon C. Hathaway, P.E. were both named as Principals to the firm. Mr. Starr retired in December 2002 and Mr. Eckman assumed the position of President. Mr. Hathaway is now the V.P. of Electrical Engineering.

In 1987 Scheeser*Buckley*Miller*Starr, Inc. merged with V.R. Mayfield & Associates, Inc., a Canton, Ohio based electrical consulting firm, to form the present corporation which offers both mechanical and electrical design services to its diversified list of clients. V.R. Mayfield & Associates, Inc. was a long established electrical design firm of outstanding reputation also serving clientele throughout Ohio and surrounding states. The joining of the two firms has greatly strengthened the position of the firm in the design community and has helped insure the continued growth and excellent reputation the two firms enjoyed during their separate histories.

Scheeser*Buckley*Mayfield, Inc. has developed an outstanding reputation for its accessibility to its clients, and the clarity and completeness of its documents. The firm has been a leader in the application of new technology and communications and computer aided design document production. We have had extensive experience in the design and analysis of projects of all sizes. With this wide range of experience, we are able to not only design, but record the results of the design to continue to improve the total systems design. Each project requires an analysis of the most cost effective system available based on the client's design parameters. It is also the responsibility of the design team to determine if other options exist, which may be beyond the scope of the current budget, which need to be considered on the current project to allow for future growth. Scheeser*Buckley*Mayfield, Inc. gives this personal attention to each project by determining the project design which can be implemented within the client's budget while applying innovative design concepts.

Many of our projects each year originate from clients who have used our services previously and wish to continue a professional association. Scheeser*Buckley*Mayfield, Inc. strives to provide very professional, competent engineering services to all of our clients and to develop a personal relationship with these clients. Our on-going association with clients provides an opportunity for them to better understand design concepts as well as the logic behind the decisions which may affect their systems for many years after the project's completion.

SCHEESER*BUCKLEY*MAYFIELD, INC.

SCOPE OF SERVICES

General Services

Master Planning
Feasibility Studies
Energy Audits
Life Cycle Cost Analysis
Construction Cost Estimates
Construction Inspection
Commissioning
Computerized Calculations
CAD Drawings
LEED Certified Engineers

Types of Facilities

Medical
Educational
Institutional
Commercial
Industrial
Laboratory Design
Computer Room Design
Corrections Facilities

<u>Telecommunications Services</u>

Voice - PBX, VoiceMail, ACD, IVR
Data - LAN/WAN
Video Systems
Structured Cabling
System Integration
Network Optimization
Cost Study/Audits
Disaster Recovery

Civil Services

Development Layouts
Site Grading
Roadways & Pavement Design
Storm Water Management
Sanitary/Storm Sewer Design
Domestic Water/Fire Line Design
Earthwork Calculations
Drainage & Flood Plain Analysis
Construction Observation

Electrical Services

Lighting Systems
Power Distribution
Communication Systems
Fire Alarm Systems
Security and Surveillance Systems
Energy Audits
Power Quality Analysis & Metering
Green Lights Survey
Emergency Power Generation and
Distribution
Medium Voltage Power Distribution and
Substation Design

Mechanical Services

Air Conditioning
Heating
Ventilation
Medical Gas Piping & System
Sanitary and Storm Piping
Process Piping
Domestic Water Piping & System
Fuel Oil Piping & Systems



MICHAEL P. WESNER, P.E., LEED AP VICE PRESIDENT - MECHANICAL ENGINEERING

PERSONAL RESUME

Mike is a graduate of Ohio State University in Columbus, Ohio. He received a Bachelor of Science Degree in Mechanical Engineering in 1981 and later that year joined the consulting firm of Scheeser Buckley Mayfield LLC which was then known as Scheeser*Buckley*Keyser.

During his first few years with the firm, Mike was heavily involved with the Title III of the National Energy Conservation Policy Act (NECPA). This governmental program was established as a cost sharing energy conservation grant programs. This program



provided funds to study the operation of schools and hospitals to determine if there were ways to reduce their energy consumption. The program then funded energy conservation measures identified in the reports. As a result of this involvement in many audits and retrofit programs for public school buildings, college and university buildings and hospitals, Mike gained valuable experience in formulating and implementing energy conservation programs in buildings that result in real world savings. This experience carries on in the work that Mike does today.

Since the mid 1980's Mike's project experience has been concentrated in the following areas:

- Large hospital Expansion and remodeling projects.
- Hospital Boiler Plant / Chiller Plant replacement projects.
- University Laboratory projects, both new construction and renovation.
- University Classroom Facilities
- University Dormitory Facilities
- Animal research facilities.
- Secondary education facilities.
- Industrial facilities.
- Telephone / Communications buildings
- Recreation/Athletic Fitness Centers
- Worship Centers

On all of the above facility types, Mike has acted as the Principal in Charge for the firm. The Principal in Charge (PIC) is the single point of contact and is responsible to make sure the project gets done on time and on budget.

Other types of project experience Mike has had are listed as follows:

- Projects where SBM was the prime design professional hired by the Owner. Typically this has been
 for chiller plant/boiler plant or other type of main A/C system replacement. This work involved hiring
 the sub-consultants, preparing the budget/schedule, writing the "front end" specification documents
 and doing all of the day to day construction administration.
- Projects where SBM was hired to diagnose and correct mechanical system problems
- Projects where SBM was hired to do Mechanical and Electrical Construction Cost Estimating

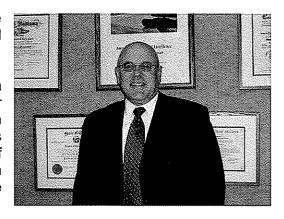
Mike is a LEED[™] 2.0 Accredited Professional and a member of ASHRAE, ASPE, NFPA and BOCA.

JAMES E. ECKMAN, P.E., LC, LEED AP PRESIDENT - ELECTRICAL ENGINEER

PERSONAL RESUME

Mr. Eckman attended The University of Akron where he received his Bachelor of Science Degree in Electrical Engineering in 1984.

After graduation, Mr. Eckman began his career as a consulting engineer by accepting a position as junior engineer with Kucheman, Peters and Tschantz, Inc., an electrical consulting firm in Akron, Ohio. During this engagement, he gained experience in the electrical design of commercial, industrial and healthcare facilities. Mr. Eckman also served as project manager for many of the projects he designed.



Concurrently, Mr. Eckman taught an electrical engineering course called "Illumination" at The University of Akron.

After leaving KPT, Inc. in 1987, Mr. Eckman gained additional experience in the construction industry by accepting the position of Engineer/Estimator for Thompson Electric, Inc. in Munroe Falls, Ohio. During this engagement, he designed and acted as project manager for several large industrial projects. He also earned electrical contractor licenses in several area communities.

Desiring to further his career as a consulting engineer, Mr. Eckman accepted a position of Senior Engineer with Scheeser Buckley Mayfield LLC in 1989. Mr. Eckman was promoted to the position of Associate in 1990, became a Principal in the firm in 1991 and Vice President of Electrical Engineering in 1992, and President in 2003.

Mr. Eckman is currently an active member of the Illuminating Engineering Society (IES). Mr. Eckman has served as Treasurer and President of the Cleveland/Akron IES section and a member of the Executive Committee for the Electrical League. Jim received his Lighting Certification (LC) administered by the National Council on Qualifications for Lighting Professionals (NCQLP) on a national basis to gauge individual expertise in lighting concepts, fundamentals and design. Mr. Eckman served on the College of Engineering Advancement Council for The University of Akron from 2002 to 2004 and is currently serving as Secretary of The University of Akron Electrical Engineering and Computer Engineering Advisory Council.

Jim is a LEED v2 Accredited Professional and is registered in the State of Ohio, West Virginia, Pennsylvania and Indiana.

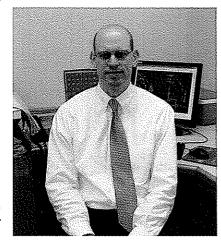
KIRBY A. STOLLER, P.E., LEED AP MECHANICAL ENGINEER

PERSONAL RESUME

Mr. Stoller attended the University of Akron and received his Bachelor of Science in Mechanical Engineering, December 1999. Upon graduation, Kirby joined the firm of Scheeser Buckley Mayfield LLC. He passed his Professional Engineering License exam in April 2004.

During college, Kirby was involved in the University of Akron's co-op program and worked at Rubbermaid, Inc, in Wooster, Ohio. He assisted with design projects to support the manufacturing plant and created plant layout drawings for the installation of injection molding machines, automation, and robots. He also met with vendors, obtained quotes, and placed orders to meet project deadlines.

Since working for Scheeser Buckley Mayfield LLC, Kirby has served as the mechanical engineer on a wide variety of projects, primarily for health care facilities and universities and has experience in all aspects



of the design of mechanical systems for buildings, including HVAC, Plumbing, and Fire Protection. He has also performed project management tasks within the office on many of his projects to coordinate the design team's efforts.

Larger projects in Kirby's background include a 175,000 square foot Patient Bed Tower and 50,000 square foot Cancer Center Building for Cabell Huntington Hospital located in Huntington, WV with total construction budgets of \$55 million and \$18 million respectively; 140,000 square foot (\$42 million) Bio-Technology Lab building for Marshall University located in Huntington, WV; 80,000 square foot (\$18 million) medical office building for Marshall University School of Medicine located in Huntington, WV; 260,000 square foot office building for Fed Ex located in Green, OH; 150,000 square foot church for The Chapel located in Green, OH.

Kirby designed the mechanical systems for the renovation of Douglass High School which is listed in the National Register of Historic Places. The project consisted of a total overhaul of the existing building systems. The interior was renovated to house medical offices and classrooms.

Other projects that Kirby has designed include:

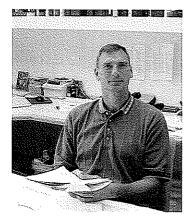
- 15,000 square foot Forensic Science Lab for Marshall University
- 15,000 square foot Dialysis Clinic for Cabell Huntington Hospital
- 28,000 square foot facility for St. Timothy's Lutheran Church
- 60,000 square foot office building renovation for the VA
- 60,000 square foot Raleigh County Judicial Center
- Additions and renovations to St. Mary's Correctional Center dining facility
- Emergency generator replacement for First Energy
- Multiple boiler, chiller, cooling tower, and air handling unit replacement projects.
- Numerous hospital renovation projects

KEVIN M. NOBLE, P.E., LEED AP PRINCIPAL

PERSONAL RESUME

Mr. Noble attended the University of Akron where he received his Bachelor of Science degree in Civil Engineering in 1987 and continued his education through night school to receive his Masters of Business Administration from Averett College in 1991.

After graduating with a Civil Engineer degree, Mr. Noble accepted a position as a Water Resource Engineer at Dewberry & Davis, Inc., a top fifty engineering firm located in Washington, D.C. Mr. Noble was assigned to work on the firm's contract with the Federal Emergency Management Agency. His responsibilities included hydrologic and hydraulic analyses, flood plain delineations and storm water management facilities. Prior to leaving the company, he was promoted to project manager where he



obtained valuable experiences in hydraulics and storm water control from projects involving the U.S. Army Corp of Engineers and Tennessee Valley Authority.

From Washington, D.C., Mr. Noble joined the staff of Elewski & Associates, Inc., a municipal civil engineering firm located in Independence, Ohio. There, he engineered a wide range of residential, commercial and industrial development projects and provided field support to facilitate timely completion of construction. Projects included public and private schools, athletic facilities, planned residential developments, multi-phased office parks, municipal building and retail centers. The site engineering involved design of water mains and pumps, sanitary sewers, force mains, pump stations and storm sewer and stormwater management systems. Prior to leaving, he was promoted to Village Engineer, in charge of plan review, infrastructure design, public work projects and construction inspection.

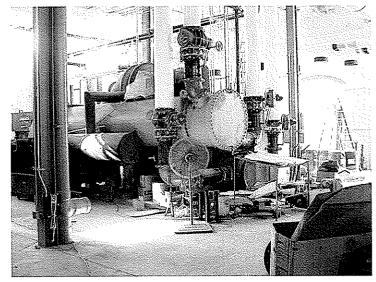
Mr. Noble joined Scheeser Buckley Mayfield LLC in early 1995 as a department head. Since that time he has participated and managed the design of numerous private and public civil and plumbing projects, including prisons, healthcare, utility companies, universities, municipalities, churches, schools and Federal Government. He attends local and national plumbing and civil conventions and seminars to stay in tune with current developing technologies.

He is registered in the State of Ohio, the State of West Virginia, the State of Florida, the State of South Carolina, the Commonwealth of Virginia and the Commonwealth of Kentucky and is a member of the American Society of Civil Engineers and American Society of Plumbing Engineers.

SCHEESER BUCKLEY MAYFIELD LLC

KENT STATE UNIVERSITY — Chiller Plant

This project included the conception and design of a central chilled water plant to Residence numerous academic buildings and auxiliary buildings at the east end of the Kent Campus. The two story new plant was located in a separate building designed specifically for its use as a chilled water production facility. The system was designed as a primary/secondary distribution system with variable flow pumping to the distributed buildings. The production of the chilled water was accomplished with two 850 ton high efficiency electrical centrifugal chillers and one 900 ton low pressure steam absorption chiller. The plant was designed to accept a future chiller as load increases on the campus. The chiller operation

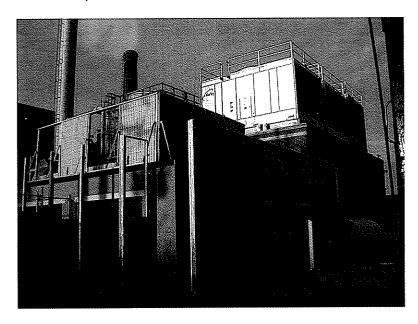


sequence was custom designed by SBM to allow optional use by operators of steam energy or electric energy based on time of day or other circumstances. The temperature control systems were a combination of pneumatic moving devices and digital sensors, and the logic was provided by a Trane digital chiller control system integrated into the campus Johnson Controls Metasys system. The project also included the connecting of piping to numerous existing buildings which had existing chillers which were ready to be retired, and Commissioning Services provided by SBM. The electrical design for this project included connection to the campus 13.2KV loop with two loop type padmount transformers. Two services entered the building, one at 4160V for the centrifugal chillers and one at 480V for miscellaneous pumps and mechanical equipment. The 480V was then stepped down in the building to 208/120V for general purpose receptacles. This project also involved several motor control centers, cooling tower connections and medium voltage chiller connections. In addition, a transformer vault was created and a medium voltage manhole was designed for the site.

- The project was completed in 2001
- The project cost was \$2,100,000
- Owner:
- Kent State University
- Office of the University Architect
- 334 Lowry Hall
- Kent, Ohio 44242-0001
- Attn: Mr. Keith Bush
- **•** (330) 672-9612

ST. MARY'S HOSPITAL - 2007 Chilled Water Plant Upgrades

Scheeser Buckley Mayfield LLC performed mechanical and electrical design required to add 1500 tons of cooling capacity to the Hospital's existing chiller plant. Project included the installation of a 1500 ton dual compressor centrifugal chiller, the replacement of (2) 550 ton cooling towers with (2) 750 ton cooling towers, installation of variable frequency drives on both new and existing cooling towers, installation of new chilled water and tower water pumps to accommodate increase in plant capacity, and the installation of a pulse powered water treatment system on the tower water system. The project also consisted of upgrading the existing (4) cooling towers to increase capacity and upgrading the existing temperature controls throughout the entire plant. Tower upgrades consisted of replacing the existing fan, motor and gear drive assembly in each existing tower with new low noise fans, motors and gear drives. Design consideration was given to limited amount of available down time for project construction. New switchgear was added for the additional pumping capacity. Conduit was re-routed to accommodate the new cooling towers and new 4160 volt starter were installed to operate the new chiller.



- The project was completed in 2007
- The project cost was \$2,700,000
- Owner:
- St. Mary's Hospital
- Office of the Chief Engineer
- 2900 First Ave.
- Huntington, WV 25702
- Attn: Mr. Steve Nelson
- **(304) 526-1208**

MARSHALL UNIVERISTY - Bio-Technology Building

The Marshall University Bio-Technology Building is located on the north side of the Marshall University campus in Huntington, West Virginia. The building consists of four floor levels with a bridge over 3rd Avenue to the existing Science Building. The project included a 300 seat auditorium, vivarium space including associated cagewash / sterilization support spaces. A significant portion of the building (approximately 50,000 sq. ft) was associated with different types of laboratories including general research, teaching laboratories as well as specialized research laboratories. The specialized research laboratories included laser equipment as well as electron microscopes. The facility included provisions to allow for the addition of BSL level 3 spaces. The building also included faculty and graduate assistant research office space.

The chiller plant consisted of three 500 ton centrifugal chillers.

The heating water boiler plant consisted of then copper fin modular boilers piped in a primary secondary arrangement.

The process steam plant consisted of three high pressure boilers and associated specialties.

SBM was responsible for a HVAC, Plumbing, Electrical, Telecommunications and Fire Protection design and commissioning. During the commissioning process the systems were started up and tested. Not surprisingly, considering the complexity of the building, a number of problems were discovered. Examples of the problems discovered and how they were corrected are listed as follows:

- 1. The high purity lab water piping system had a tendency to sometimes spring a leak whenever the
 - system pumps started. The leak always occurred at the faucet compression fitting connection. This problem was diagnosed as a "water hammer" problem. The problem was corrected by installing soft start starters on the system pumps.
- 2. The cooling towers for the chilled water system were shipped with the wrong motor pulleys and undersized hot water basin nozzles. The undersized nozzles was easy to diagnose because the cooling towers overflowed when balanced to the specified condenser water flow rate. The wrong motor pulleys were discovered when testing showed the motors were pulling significantly less than name plate.



were pulling significantly less than name plate amps. Both issues were resolved by parts and technicians provided by the cooling tower manufacturer.

- 3. Of the many pieces of Laboratory equipment on the project, the casework contractor provided two biological safety cabinets that were not the correct style. All biological safety cabinets on the project were to be of the Class 2 Type A configuration. As such the ductwork systems for the biological safety cabinets were designed with a thimble style connection. In the two cases noted, Class 2 Type B2 configuration units were provided. These safety cabinets were not compatible with the ductwork system and were changed to the specified style.
- The project was completed in 2006
- The project cost was \$42,500,000
- MEP cost was \$16,500,000
- Owner: Marshall University Facilities Planning and Management 400 Hal Greer Blvd. (physical) Huntington, WV 25702

Attn: Mr. Ron May (304) 696-2585



MARSHALL UNIVERSITY - Student Housing and Dining Hall

This project consists of four (4) 40,000 sq. ft, 4-story residence hall buildings. The residence halls are of the "suite" type arrangement. Residence halls contain suites which contain two 2-bedroom suites, four single bedroom suites and four 2-bed type suites. The residence hall buildings are state-of-the-art with all of the amenities, including air conditioning, data ports for local campus internet and internet access, as well as a fire protection system installed throughout the facilities. The HVAC system for the building consists of a four-pipe fan coil system with perimeter hydronic heat. The building also has a central ventilation system which provides mechanical ventilation to all spaces within the building as a central toilet exhaust system.





The dining hall facility is an 18,000 sq. ft. building housing a full kitchen, state-of-the-art serving area, meeting rooms and exercise room. The HVAC system for this facility consists of custom roof-top heating and cooling equipment.

The boiler plant in located in the basement of the dining hall. The boiler plant consists of six copper fin modular boilers. The heating water is piped underground to the four dorms in a loop type fashion.

The chiller plant consists of 3 air cooled chillers located on the roof of the dining hall (over top of the kitchen). The chilled

water is piped underground to the four dorms in a loop type fashion.

The buildings were designed to comply with the West Virginia Fire Code, NFPA, the BOCA codes and ASHRAE Standard 90.1.

- The project was completed in 2003
- The project cost was \$29,000,000
- MEP cost was \$7,500,000
- Owner:

Marshall University Facilities Planning and Management 400 Hal Greer Blvd. (physical) Huntington, WV 25702 Attn: Mr. Ron May (304) 696-2585

MARSHALL UNIVERSITY - School of Medicine Clinical Education & Outreach Center



Scheeser Buckley Mayfield LLC, Inc. performed mechanical and electrical design services for a new 80,000 sq. ft. medical office building. The building was designed with a custom penthouse unit. The unit contains the building's air handling units as well as a mechanical room to house water heaters, boilers, and pumps. Rooftop air-cooled chillers serve the penthouse unit. The building is fully sprinkled and is equipped with manual wet standpipes. A complete DDC control system was designed to control the HVAC equipment. Electrical

systems included in the design include lighting, power distribution, and life safety systems. A standalone gas generator was also designed as part of the project.

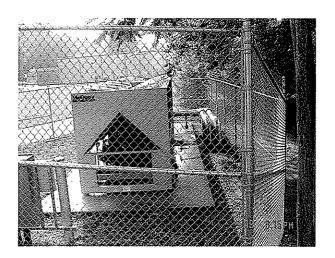
- The project was completed in 2006
- The project cost was \$20,000,000
- MEP cost was \$5,500,000
- Owner:

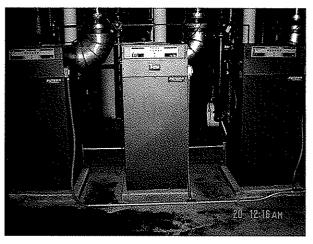
Marshall University Facilities Planning and Management 400 Hal Greer Blvd. (physical) Huntington, WV 25702 Attn: Mr. Ron May (304) 696-2585

KANAWHA COUNTY SCHOOLS - Stonewall Jackson HVAC Upgrade

Scheeser Buckley Mayfield LLC performed mechanical and electrical design services for HVAC renovations to the existing 180,000 square foot Middle School and associated 15,000 square foot Physical Education building. The project involved air conditioning the existing school, which was originally ventilated and heated only. The air conditioning system consists of an air cooled chiller with multiple fan coil units being used for individual temperature control. The chilled water system contains 40% propylene alycol solution, allowing the chiller to be run during colder months without the worry of freezing the chiller evaporator or draining the system. The classroom ventilation system consists of multiple 100% outdoor air handling units strategically sized and located to replace the existing ventilation units. The new ventilation units are capable of dehumidifying the outdoor air and are connected to the existing ventilation ductwork, minimizing the overall construction cost of the project. Space carbon dioxide sensors are utilized to ensure the ventilation units supply the minimum amount of outdoor air required for adequate ventilation, minimizing operating costs. Packaged rooftop units are also used in select office areas. The rooftop air handling units were isolated from the space below by locating the units over corridor areas where possible and also by providing a concrete isolation pad beneath the equipment to minimize fan noise and compressor noise transmitted to the spaces below. Boiler plant upgrades consists of the installation of three packaged heating water boilers to supplement the existing steam boiler plant. The Physical Education building HVAC system consists of multiple gas heating/DX cooling rooftop air handling units serving the gymnasium area. Duct mounted Carbon dioxide sensors are utilized to ensure the units supply the minimum amount of outdoor air required for adequate ventilation, minimizing operating costs.

Electrical upgrades included the design of the removal and replacement of the buildings main distribution panel. The distribution panel was increase in size to accommodate the new mechanical equipment. Coordination was required with the owner and local utility company to limit the power interruption required. In addition, the fire alarm system was extended for the new rooftop equipment shutdown.





- The project was completed in 2004
- The project cost was \$2,500,000
- MEP cost was \$1,700,000
- Owner:
- Kanawha County Schools
- 3300 Pennsylvania Avenue
- Charleston, WV 25302
- Attn: Mr. Chuck Wilson
- (304) 348-6148

CABELL HUNTINGTON HOSPITAL - Bed Tower

The CHH Bed Tower Project is the start of a replacement hospital for this facility. The project will house a new emergency room, ICU/CCU rooms, NICU, maternity floor, and patient rooms. The total project area consists of 175,000 square feet of new construction and 50,000 square feet of remodeled areas. The electrical portion of the project involved the installation of redundant 12.47KV utility sources to an owner owned automatic throwover switch. 12.47KV distribution is fed to multiple double-ended unit substations for generation of 480V and 208V power for the 175,000 square foot hospital addition. The hospital addition includes a new emergency department and



includes integration with the existing emergency department. In order to maintain operation of the emergency department, a temporary emergency department was created and built which included two new elevators which are to serve the temporary emergency department and helipad. The addition included a medical-surgical ward, Labor-Delivery-Recovery (LDR) floor with 3 C-section operating rooms, an intensive care ward, a critical care ward, and a pediatrics ward. The emergency power system was upgraded to include a 10,000 amp paralleling gear, existing generators added to the new paralleling gear and the addition of two 1,750KW generators. The emergency power system provided a 2,000 amp feed to the new building and distribution to the three emergency power branches (life safety, critical, and equipment branches) via use of transfer switches.

The chiller plant consists of two 650 water cooled centrifugal chillers. The chillers are set up for a variable flow primary arrangement.

The boiler plant consist of two 600 HP high pressure steam boilers and related specialties. The heating water system consists of a steam to hot water heat exchanger located in the penthouse mechanical room.

- The project was completed in 2007
- The project cost was \$55,000,000
- MEP cost was \$21,000,000
- Owner:

Cabell Huntington Hospital 1340 Hal Greer Blvd Huntington, WV 25701-0195 Attn: Gerry Stevenson (304) 526-2040

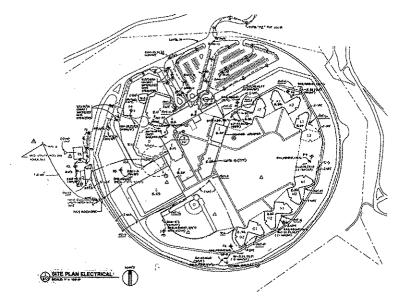
MT. OLIVE CORRECTIONAL COMPLEX - New Electrical Substation

The project consists of the design of a new 34.5kV to 12.47kV electric substation outside the facilities' boundary fence to replace the facilities' trouble prone 34.5kV distribution system. Drawings and Specifications are being prepared for the installation of a new electric substation, the replacement of the facilities' padmount transformers, and the underground high voltage cable loop feeding the transformers. The substation design is the low profile type and includes voltage regulation. Heating and ventilation systems for the switchgear house are provided.

The substation will have two transformers with a secondary tie at the 12.47 KV level. The substation secondary tie would permit feeding all substation loads in the event one of the transformers fails or is

taken off line maintenance. The design of the substation includes a 12.47 KV switchgear house to enclose the substation's 12.47kV switchgear. This is being done to improve reliability and ease of maintenance substation's the of switchgear. Project design will cover the extension of the existing 35 KV power company line to the new substation.

The project presents a design challenge in the area of substation grounding as the facility is



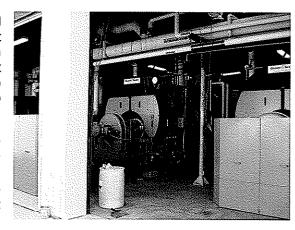
on the top of a mountain in a reclaimed mine area having suspect soil conditions that can adversely affect a good grounding installation. The project presents challenges in interfacing with the facilities' standby power system as the system is old and interfaced with the distribution system in an unconventional manner. An additional design challenge is to maintain power to each of the facility buildings during the construction of the project. This will be taken care of by starting at one end of the facilities 34.5kV loop and reconnecting each padmount transformer on a one by one basis to the new 12.47kV distribution loop. A temporary generator will be connected to each building as its associated padmount transformer is replaced.

- The project is under design
- The project cost is \$2,800,000
- Owner:
- West Virginia Regional Jail and Correctional Facility Authority
- 1325 Virginia Street, East
- Charleston, West Virginia 25301-3011
- Attn: Bill Wimer
- **(304)** 558-2110

HUTTONSVILLE CORRECTIONAL INSTITUTION - Boiler Replacement

Scheeser Buckley Mayfield LLC provided electrical design associated with the installation of replacement boilers serving the facility. The electrical renovation included rework of an existing feeder and replacement of existing distribution in the boiler plant to support the new equipment. Lighting in the boiler plant was also replaced as part of the project.

The boiler plant work included removing two 450 HP water tube steam boilers and installing two new 600 HP fire tube steam boilers. A new surge tank and Deareator Feed water system was installed. The boilers are oil fired and the existing fuel oil pump set was reused.



- The project is was completed in 2007
- The project cost is \$1,200,000
- Owner:

West Virginia Division of Corrections 617 Leon Sullivan Way Charleston, West Virginia 25301 Attn: Bill Wimer (304) 558-3026

SCHEESER BUCKLEY MAYFIELD, INC.

REFERENCES

Scheeser Buckley Mayfield and Silling Associates have collaborated on numerous projects for the West Virginia Division of Corrections. The latest project that most resembles the Building 9 project was a steam boiler replacement project at Huttonsville Correctional Center, where two new 600 HP high pressure steam boiler were installed to replace two existing 450 HP boilers.

This project had "several" challenges to overcome. First, we had to deal with the poor condition of the steam traps in the main facility. The main condensate line coming back from the prison was at times low pressure steam. This line could not under any circumstances be connected to the Deaerator tank, as it would reduce the oxygen elimination feature of the deaerator tank and most likely overheat the tank, which would lead to feed water pump issues.

To solve this problem a very large flash tank was installed to flash this steam into liquid before it was pumped into the deaerator. The flash tank solved the issue. We discovered this problem by noting that the old deaerator tank was blow down about every 15 minutes because the condensate return line would overheat it. The new design had to solve this issue.

Contact information is noted below:

Mr. Bill Wimer West Virginia Division of Corrections 617 Leon Sullivan Way Charleston, West Virginia 25301 (304) 558-3026

Scheeser Buckley Mayfield has been working for Marshall University since the late 1980's. We have worked on many projects, including new construction and remodeling/renovation work.

There are few buildings on the Marshall Campus that SBM has not done some work in. Holderby Hall is the latest boiler replacement project that was done for the University. The project consisted of removing an old fire tube boiler and replacing it with three copper fin modular boilers. This project was a super-fast track project. SBM was not hired until mid July of 2008 to do the drawings and the project was designed, bid, and installed by December of 2008.

Contact information is noted below:

Mr. Ron May Marshall University Facilities Planning and Management 400 Hal Greer Blvd. (physical) Huntington, WV 25702 (304) 696-2585

Scheeser Buckley Mayfield has been working for St. Mary's Hospital in Huntington since the late 1950's. We have worked on many projects including new construction and

remodeling/renovation work. There have been many chilled water system projects. Most of the buildings at St. Mary's are connected to the main plant and SBM has designed most of the chilled water system.

In 2007 there was major work done in the chiller plant. This project is briefly described in the attached list of projects. The chiller plant project addressed capacity issues and equipment replacement issues. The work was very complex and the Owner expressed complete satisfaction with the results.

Contact information is noted below:

Mr. Steve Nelson St. Mary's Hospital 2900 First Ave. Huntington, WV 25702 (304) 526-1208

Scheeser Buckley Mayfield has been working for Kent State University since the mid 1960's. We have worked on many chilled water projects on the campus, both large and small.

The latest chilled water project for Kent State is now out for bid and consisted of running chilled water piping through the existing tunnel system to serve a building which recently had a chiller failure. In lieu of replacing the chiller, the building will be connected to the campus chilled water system.

Contact information is noted below:

Mr. Keith Bush Kent State University Office of the University Architect 334 Lowry Hall Kent, Ohio 44242-0001 (330) 672-9612

Scheeser Buckley Mayfield has been working for Cabell Huntington Hospital since the late 1990's. We have worked on many remodeling projects and we were the MEP engineers for the last two major additions to the hospital, the Joan C. Edwards Cancer Hospital Addition and the North Bed Tower Addition. Cabell hires SBM on a direct basis for a multitude of projects. Two years ago, we designed new cooling towers for the hospital's main chilled water plant. The attached project sheet describes the North Patient Tower. Cabell has told us that they enjoy working with SBM because we give them practical answers.

Contact information is noted below:

Gerry Stevenson Cabell Huntington Hospital 1340 Hal Greer Blvd Huntington, WV 25701-0195 (304) 526-2040