

RECEIVED

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

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STATE OF WV

RE:

Expression of Interest Design Renovations for

West Virginia Department of Administration

Requisition #GSD096410

Dear Sir or Madam:

It is indeed a pleasure to submit to you our package of information in response to your request for expression of interest for the A/E design services for the renovation of three existing office buildings for the West Virginia Department of Administration.

Bastian & Harris, Architects brings a wide variety of project experience to your design team. Our personal attention to detail and problem solving approach in design has been demonstrated by a track record of quality architectural services provided on time, on budget, and with minimal change orders for a variety of projects for both State and private owners. Our familiarity with construction methods and a common sense approach to solving owner's problems is the cornerstone of our architectural philosophy.

We have a considerable amount of experience with projects of all types including office and administrative facilities. We have worked with BB&T on renovations to not only each of their banking floors but also multiple tenant build-outs throughout BB&T Square. Over the years this has totaled over 100,000 sf of space. Furthermore, we have been engaged by many private clients for office and tenant build-outs. This includes Kesner, Kesner & Bramble, beBetter Networks, and other downtown office spaces. Our experience has also included similar spaces in higher education, health care, as well as commercial projects. We feel that this diversity enhances our ability to bring fresh ideas to the table, to think outside the box, and create a workable and affordable solution tailored to the specific needs of your facilities.

Bastian & Harris, Architects will take the lead and provide full service architectural and engineering services under one contract. However, we do not do this alone. We prefer to work with individual engineering consultants feeling that the best engineers own their own consulting firms. We believe that by selecting a firm tailored to the specific needs of the project can best provide engineering services that meet the specific project requirements. For your project, we have selected the following:

Mechanical / Electrical / Plumbing / Civil Engineering: Structural Engineering:

Scheeser Buckley Mayfield Steven Schaefer Associates

In selecting Scheeser Buckley Mayfield, we have chosen an engineering firm with a long track record with our firm in providing quality projects for Marshall University and Kanawha County Schools, as well as 911 Center, courthouse renovations and prisons. Heating and air conditioning systems used in office areas are a critical element of design and feel that SBM is in an excellent position to analyze and make

recommendations for matching interior and environmental of new spaces while balancing long term maintenance considerations. They have a good track record in analyzing existing systems and making necessary recommendations for enhancements to or replacement of existing systems. The thoroughness of their analysis and willingness to listen to Owner input in establishing design criteria has led to many successful projects. Their commitment to detailing and providing complete construction documents likewise results in an admirable track record of low change orders during construction. They will also participate in the commissioning process and stay on board after completion making sure systems are functioning properly and that maintenance personnel understand the operational requirements of the systems.

Likewise, Steven Schaefer Associates has worked with us on numerous projects including Marshall University, Kanawha County Schools, and other private owners. They have provided similar structural design services in projects throughout West Virginia, Ohio and Kentucky. They too stress thoroughness of their documentation in preparing complete plans and specifications and maintain close coordination between architectural and mechanical disciplines to eliminate conflicts in the field and potential cost overruns.

Together, we have worked on multiple projects and endeavor to comply with all applicable state and federal regulations. We provide initial reviews with the State Fire Marshal's Office early in the project to ensure initial concepts comply with State Fire Code. In addition, we will meet with any applicable state and federal regulatory agencies to review specific criteria as the project develops. We have staff with LEED certification, and can address possible implementation of green technologies to existing construction. Additionally, we are well versed in ADA accessibility and can assist in evaluating these issues and prepare strategies for compliance.

We believe in thorough documentation and have been successful in avoiding any claims or litigation. It is this continued attention to little things that we feel helps avoid the big issues.

While we have assembled the team of specialists to specifically gear toward your projects needs, understand that Bastian & Harris, Architects will remain the principal contact and in charge of the project in development throughout the process. From our office in Charleston, we stand ready to ensure a smooth, clear and concise communication between Owner and all members of the design team. We will welcome the opportunity to meet with you and your evaluation committee to discuss in more detail your project needs, our design approach and methodology, and our ability to successfully meet your project goals and objectives.

Sincerely

Jobh Harris



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

Charleston, WV 25301-1630

# Request for Quotation

AFGNUMBER GSD096410 PAGE....

ADDRESS CORRESPONDENCE TO ALTENTION OF KRISTA FERRELL 304-558-2596

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DEPARTMENT OF ADMINISTRATION
GENERAL SERVICES DIVISION
JOBSITE
SEE SPECIFICATIONS

304-558-2317

RFQ COPY
TYPE NAME/ADDRESS HERE

Bastian & Harris, Architects, PLLC
300 Summers Street, Suite 1200

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

## GENERAL TERMS & CONDITIONS PURCHASE ORDER/CONTRACT

- ACCEPTANCE: Seller shall be bound by this order and its terms and conditions upon receipt of this order.
- APPLICABLE LAW: The laws of the State of West Virginia and the Legislative Rules of the Purchasing Division shall govern all rights and duties under the Contract, including without limitation the validity of this Purchase Order/Contract.
- 3. NON-FUNDING: All services performed or goods delivered under State Purchase Orders/
  Contracts are to be continued for the terms of the Purchase Order/Contract, contingent upon funds being appropriated by the Legislature or otherwise being made available. In the event funds are not appropriated or otherwise available for these services or goods, this Purchase Order/
  Contract becomes void and of no effect after June 30.
- 4. COMPLIANCE: Seller shall comply with all Federal, State and local laws, regulations and ordinances including, but not limited to, the prevailing wage rates of the WV Division of Labor.
- 5. MODIFICATIONS: This writing is the parties final expression of intent. No modification of this order shall be binding unless agreed to in writing by the Buyer.
- **6. ASSIGNMENT:** Neither this Order nor any monies due, or to become due hereunder may be assigned by the Seller without the Buyer's consent.
- 7. WARRANTY: The Seller expressly warrants that the goods and/or services covered by this order will: {a} conform to the specifications, drawings, samples or other description furnished or specified by the Buyer; {b} be merchantable and fit for the purpose intended; and/or {c} be free from defect in material and workmanship.
- 8. CANCELLATION: The Director of Purchasing may cancel any Purchase Order/Contract upon 30 days written notice to the seller.
- 9. SHIPPING, BILLING & PRICES: Prices are those stated in this order. No price increase will be accepted without written authority from the Buyer. All goods or services shall be shipped on or before the date specified in this Order.
- 10. LATE PAYMENTS: Payments may only be made after the delivery of goods or services. Interest may be paid on late payments in accordance with the *West Virginia Code*.
- 11. TAXES: The State of West Virginia is exempt from Federal and State taxes and will not pay or reimburse such taxes.
- 12. RENEWAL: Any reference to automatic renewal is hereby deleted. The Contract may be renewed only upon mutual written agreement of the parties.
- 13. BANKRUPTCY: In the event the vendor/contractor files for bankruptcy protection, this Contract may be deemed null and void, and terminated without further order.
- 14. HIPAA Business Associate Addendum The West Virginia State Government HIPAA Business Associate Addendum (BAA), approved by the Attorney General, and available online at the Purchasing Division's web site (http://www.state.wv.us/admin/purchase/vrc/hipaa.htm) is hereby made part of the agreement. Provided that, the Agency meets the definition of a Covered Entity (45 CFR §160.103) and will be disclosing Protected Health Information (45 CFR §160.103) to the vendor.
- 15. West Virginia Alcohol & Drug-Free Workplace Act: If this Contract constitutes a public improvement construction contract as set forth in Article 1D, Chapter 21 of the West Virginia Code ("The West Virginia Alcohol and Drug-Free Workplace Act"), then the following language shall hereby become part of this Contract: "The contractor and its subcontractors shall implement and maintain a written drug-free workplace policy in compliance with the West Virginia Alcohol and Drug-Free Workplace Act, as set forth in Article 1D, Chapter 21 of the West Virginia Code. The contractor and its subcontractors shall provide a sworn statement in writing, under the penalties of perjury, that they maintain a valid drug-free work place policy in compliance with the West Virginia Alcohol and Drug-Free Workplace Act. It is understood and agreed that this Contract shall be cancelled by the awarding authority if the Contractor: 1) Fails to implement its drug-free workplace policy; 2) Fails to provide information regarding implementation of the contractor's drug-free workplace policy at the request of the public authority; or 3) Provides to the public authority false information regarding the contractor's drug-free workplace policy."



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TYPE NAME/ADDRESS HERE

Charleston, WV 25301-1630

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

Bastian & Harris, Architects, PLLC

300 Summers Street, Suite 1200

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300 Summers Street, Suite 1200

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Bastian & Harris, Architects, PLLC

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## STATE OF WEST VIRGINIA Purchasing Division

## PURCHASING AFFIDAVIT

#### **VENDOR OWING A DEBT TO THE STATE:**

West Virginia Code §5A-3-10a provides that: No contract or renewal of any contract may be awarded by the state or any of its political subdivisions to any vendor or prospective vendor when the vendor or prospective vendor or a related party to the vendor or prospective vendor is a debtor and the debt owed is an amount greater than one thousand dollars in the aggregate.

#### **PUBLIC IMPROVEMENT CONTRACTS & DRUG-FREE WORKPLACE ACT:**

West Virginia Code §21-1D-5 provides that: Any solicitation for a public improvement construction contract shall require each vendor that submits a bid for the work to submit at the same time an affidavit that the vendor has a written plan for a drug-free workplace policy in compliance with Article 1D, Chapter 21 of the West Virginia Code. A public improvement construction contract may not be awarded to a vendor who does not have a written plan for a drug-free workplace policy in compliance with Article 1D, Chapter 21 of the West Virginia Code and who has not submitted that plan to the appropriate contracting authority in timely fashion. For a vendor who is a subcontractor, compliance with Section 5, Article 1D, Chapter 21 of the West Virginia Code may take place before their work on the public improvement is begun.

#### **ANTITRUST:**

In submitting a bid to any agency for the state of West Virginia, the bidder offers and agrees that if the bid is accepted the bidder will convey, sell, assign or transfer to the state of West Virginia all rights, title and interest in and to all causes of action it may now or hereafter acquire under the antitrust laws of the United States and the state of West Virginia for price fixing and/or unreasonable restraints of trade relating to the particular commodities or services purchased or acquired by the state of West Virginia. Such assignment shall be made and become effective at the time the purchasing agency tenders the initial payment to the bidder.

I certify that this bid is made without prior understanding, agreement, or connection with any corporation, firm, limited liability company, partnership or person or entity submitting a bid for the same materials, supplies, equipment or services and is in all respects fair and without collusion or fraud. I further certify that I am authorized to sign the certification on behalf of the bidder or this bid.

#### LICENSING:

Vendors must be licensed and in good standing in accordance with any and all state and local laws and requirements by any state or local agency of West Virginia, including, but not limited to, the West Virginia Secretary of State's Office, the West Virginia Tax Department, West Virginia Insurance Commission, or any other state agencies or political subdivision. Furthermore, the vendor must provide all necessary releases to obtain information to enable the Director or spending unit to verify that the vendor is licensed and in good standing with the above entities.

#### **CONFIDENTIALITY:**

The vendor agrees that he or she will not disclose to anyone, directly or indirectly, any such personally identifiable information or other confidential information gained from the agency, unless the individual who is the subject of the information consents to the disclosure in writing or the disclosure is made pursuant to the agency's policies, procedures and rules. Vendors should visit www.state.wv.us/admin/purchase/privacy for the Notice of Agency Confidentiality Policies.

Under penalty of law for false swearing (West Virginia Code §61-5-3), it is hereby certified that the vendor acknowledges the information in this said affidavit and is in compliance with the requirements as stated.

Vendor's Name:	Bastian & Harris	, Architects,	PLLC		
Authorized Signature:	Shows		Date:	25 September	2008
Purchasing Affidavít (Revisi					

#### Owner

# WEST VIRGINIA DEPARTMENT OF ADMINISTRATION

#### **Architect**

Bastian & Harris, Architects 300 Summers Street, Suite 1200 Charleston, WV 25301-1630 John Harris, AIA, Principal Doug Bastian, AIA, Principal

#### Mechanical/Electrical/Plumbing Engineering

Scheeser Buckley Mayfield, Inc. 1540 Corporate Woods Parkway Uniontown, OH 44685-8797 Jim Eckman, PE, President Mike Wesner, PE, Vice President

## Structural Engineering

Steven Schaefer Associates 1166 Dublin Road, Suite 200 Columbus, OH 43215-1038 Greg Sliger, PE, Vice President



The firm of Bastian & Harris, Architects was established in 1999 by Doug Bastian, AIA and John Harris, AIA. For 27 years, Doug and John worked for the firm of Clint Bryan & Associates in Charleston. During their tenure with this architectural firm, Doug and John participated in the production of a wide variety of projects ranging from higher education, primary and secondary education, health care, churches, commercial office space, retail, recreational, and custom residential. Through this association, they gained valuable experience in all phases of the design and construction process. Their technical expertise in the production of detailed construction documents and hands on approach to contract administration has gained them respect among the construction industry with a reputation for minimal change orders. This practical experience contributes to their ability to match owner's functional needs with economical and constructible design solutions. Detailed cost estimating from conceptual phase through construction documents has led to an excellent track record of delivering projects on time and in budget.

Bastian & Harris offers full service architectural designs to their clients while remaining small and personal. This four man firm, consisting of three registered architects and one associate, can produce projects of various sizes and complexities. By utilizing independent mechanical, electrical, and structural engineering consultants as needed, the firm capitalizes on a wide range of technical expertise and support. When specific projects require special expertise, Bastian & Harris will call upon specialized architectural design firms or other design consultants and utilize the knowledge and experience of nationally recognized professionals within a specific discipline. This allows them to build a design team specifically geared to the clients individual goals and objectives.

From early project development through programming, budget, design, technical drawings, specifications, and contract administration, a project is handled by the same key individuals. This continuity of personnel from inception to completion results in smooth communication between owner and all members of the project team. This helps to ensure quality control throughout the project and effectively translate owner's original project goals into a successful and complete project.

Recent projects include a 500-bed Student Housing and Dining Facility Complex for Marshall University, new Corporate Offices for Go-Mart, Inc., new Banquet Facility, Training, Educational, and Conference Center Addition at Caperton Center, and various renovations and additions to seven elementary schools for Kanawha County. Currently under construction are a new facility for Eastern West Virginia Community & Technical College, Virginia Thomas Law Center for the Performing Arts at West Virginia Wesleyan College, and various projects for Kanawha County Schools. Presently, projects include Marshall Community & Technical College, various other projects at Marshall University, and new offices for Hospice.

Doug and John are committed to providing a high level of professional service with personal attention to detail. It is this reputation that has helped to establish them within the architectural and construction community. They look forward to serving your design needs and appreciate the opportunity to be part of your project.



Doug Bastian, AIA, Principal, is a registered architect, licensed since 1988 to practice architecture and has over 35 years experience within the building industry. Doug participated in the production of numerous projects. He continues to focus on design, estimating, construction documents, and construction administration aspects of projects.

#### Education

Bachelor of Science in Architectural Technology West Virginia State College – 1968

#### Registration/License

Licensed in West Virginia 1988 Certification by National Council of Architectural Registration Boards

#### **Affiliations**

American Institute of Architects
AIA West Virginia

### Project Experience

Marshall University

Student Housing and Dining Facility Complex

Renovations to Holderby Hall

Enhancements to Caperton Center (Tamarack)

Eastern WV Community & Technical College

Classroom / Laboratory / General Support Building

Tri-County YMCA Natatorium and Wellness Center

Blessed Sacrament Church Parish Hall

**Ayash Sport Center** 

Corporate Office for Go-Mart

Kanawha County Schools

Horace Mann Middle School Renovations

**Grandview Elementary School Addition** 

**Garnet Adult Center Renovations** 

New Windows and Masonry Repairs at Clendenin Elementary

**Dupont Middle School HVAC Renovations** 

Auditorium Renovations at Five Area High Schools

Library/Computer Lab Addition and Fire Code Corrections to Point Harmony

**Elementary School** 

Renovations and HVAC Upgrades to Horace Mann Middle, Dupont Middle, and Chesapeake Elementary

Renovations to Shawnee Community Education Center

Renovations and HVAC Upgrades to Stonewall Jackson Middle School

Herman Eye Center New Office Building

Addition and Renovations to Comfort Inn

Bible Center Church Master Plan

Cross Lanes United Methodist Church New Fellowship Hall

Calvary United Methodist Church Addition and Renovations

Virginia Thomas Law Center for the Performing Arts at

West Virginia Wesleyan College



John Harris, AIA, Principal, is a registered architect, licensed since 1982 to practice architecture. In 1972, John joined the firm of Clint Bryan & Associates. While there, John worked with and assisted in the production of a wide variety of projects. responsibilities include overall project development, design, construction documents, and construction administration.

#### **Education**

Bachelor of Science in Architectural Technology Summa Cum Laude West Virginia State College – 1973

#### Registration/License

Licensed in West Virginia 1982 -- Virginia 2002 Certification by National Council of Architectural Registration Boards

#### **Affiliations**

American Institute of Architects; AIA West Virginia; West Virginia Society of Architects Board of Directors 1983-85 and 2005-Present; AIA West Virginia Scholarship Committee; Council of Education Facilities Planners

#### **Project Experience**

Marshall University

Student Housing and Dining Facility Complex Memorial Student Center Lobby Renovations Expansion to Mid Ohio Valley Center Renovations to Buskirk Hall Graduate College Renovations Art Department Renovations

Housing / Wellness Center

Eastern West Virginia Community & Technical College Classroom / Laboratory / General Support Building

Kanawha County Schools

Ruffner Elementary - Addition and Renovations Overbrook Elementary - Addition and Renovations

Alban / Andrews Heights / Anne Bailey Elementary - Additions and Renovations

Central Elementary - Addition

Horace Mann Middle School Renovations

West Virginia Wesleyan College

Virginia Thomas Law Center for the Performing Arts

Marshall Community & Technical College

Moses Automotive Factory Outlet

Hospice Administrative Office Building

Pleasant Valley Hospital - Emergency Services and Laboratory Renovations

Addition and Renovations to Bible Center Church

Addition to Emmanuel Baptist Church

Mountaineer Imaging Center

Citizens National Bank of Snowshoe

Law Office of Kesner, Kesner & Bramble

**BB&T Lobby Renovations** 

Hampton Inn Addition and Renovations



Chris Campbell, AIA, is a registered architect and licensed since 2000 to practice architecture.

In 1996, Chris was employed as a project architect with Williamson Shriver, Architects and was responsible for design, project development, and contract documents with an emphasis on public K-12 educational facilities. Activities included design, progress meetings, technical coordination with consultants, CADD drafting, specification preparation, project reviews with various state agencies, pre-bids, clarifications during bidding process, and bid openings, coordination with construction staff, progress reviews. Primary responsibility on projects included the implementation of design goals with respect to client's program and budget.

In May 2006, Chris joined the firm of Bastian & Harris, Architects. Responsibilities include overall project development, design, construction documents, bidding, and construction administration.

#### Education

University of Tennessee - 1996

#### Registration/License

Licensed in West Virginia - 2000

Certification by National Council of Architectural Registration Boards

#### **Affiliations**

American Institute of Architects

West Virginia Chapter of the American Institute of Architects

#### Professional Service

AIA WV Chapter President - 2006 to 2007

AIA WV Executive Committee - 2001 to present

AIA 150 Champion (AIA WV) - 2006 to 2007

Intern Development Program State IDP Coordinator - 2000 to 2005

### Project Experience with Williamson Shriver, Architects

University High School - 217,000 sf new facility

Mylan Park and Skyview Elementary Schools - two 80,000 sf facilities

Widmyer Elementary School - 44,000 sf addition and renovation

Philip Barbour High School - 169,000 sf addition and renovation

Erma Byrd Art Gallery, University of Charleston - renovation into new art gallery

Jefferson County Middle School - 88,000 sf new facility

Berkeley Springs High School - 114,000 sf addition and renovation

Ram Stadium, Shepherd College - 2100 seat new facilities /support buildings

Bluefield Intermediate School - 43,000 sf new facility

Princeton Primary School - 56,600 sf new facility

### Project Experience with Bastian & Harris, Architects

Overbrook Elementary School Addition and Renovation

Eastern West Virginia Community and Technical College New Classroom /

Laboratory / Support Building

West Virginia Wesleyan College

Virginia Thomas Law Center for the Performing Arts

Hospice Administrative Office Building

Kanawha County Schools - Auditorium Renovations at Five Area High Schools

BB&T 14th Floor Tenant Build-Out



#### Educational

West Virginia Wesleyan College Center for the Performing Arts Marshall University

Student Housing Complex

Renovations to Holderby Hall

Renovations to Buskirk Hall

Renovations to Memorial Student Center

Housing / Wellness Center

6th Avenue Parking

Mid-Ohio Valley Center

Art Department Renovations

Marshall University Graduate College

Marshall Community & Technical College

Eastern West Virginia Community and Technical College

Classroom / Laboratory / General Support Building

Distance Learning Classrooms

Kanawha County Schools - Renovations:

Central Office

Multiple School Auditoriums

Horace Mann Middle School

George Washington High School

**Shawnee Community Education Center** 

Kanawha County Schools - Additions:

Point Harmony Elementary

**Grandview Elementary** 

Alban Elementary

Andrews Heights Elementary

Anne Bailey Elementary

**Central Elementary** 

Overbrook Elementary

**Ruffner Elementary** 

Horace Mann Middle School

McKinley Middle School

**Garnet Adult Center** 

Point Harmony IMC / Computer Lab

Kanawha County Schools - Renovations and HVAC Upgrades:

Horace Mann Middle, Dupont Middle, and Chesapeake Elementary Schools

Stonewall Jackson Middle School

Kanawha County Schools - Window Replacement:

**Dunbar Middle School** 

McKinley Middle

Horace Mann Middle School

Clendenin Elementary School



#### Commercial

Enhancements to Caperton Center (Tamarack) South Hills Shopping Center Renovations Holiday Inn Renovations - Civic Center Moses Automotive Factory Outlet - Southridge Joe Holland Chevrolet Renovations to Bert Wolfe Ford / Toyota Renovations to Beckley Toyota Moses Automotive Factory Outlet - Teays Valley Kanawha County Public Library - Charleston Branch Kanawha County Public Library - Clendenin Branch Renovations to Dunbar Public Library Renovations to St. Albans Public Library Charleston Acoustics Building Renovations Ridgeline Development Southridge Center Development Soaring Eagle Lodge - Snowshoe Avash Development - St. Albans Comfort Inn Addition and Renovations Hampton Inn Addition and Renovations Ramada Inn Renovations

#### **Professional Offices**

Kesner, Kesner & Bramble Law Office New England Financial Renovations Pleasant Valley Hospital Wellness Center Go-Mart Office Building beBetter Networks Trans Allegheny Building Renovations Herman Eye Center Bailey & Glasser Ranson Law Office Renovations

#### **Banking**

Branch Banking & Trust Lobby Renovations
Branch Banking & Trust Tenant Build-Outs - 4th, 6th and 14th Floors
Citizens National Bank - Snowshoe Branch
Pleasants County Bank - St. Mary's



#### Residential

Morgan Residence Carson Residence Newbold Residence Edward Smith Residence Maxson Residence Lawrence Residence Cobb Residence Kesner Residence Higgins Residence Wallace Residence Brewster Residence George Residences Hosaflook Residence Anderson Residence Hamady Residence Akins Residence Hosaflook Residence Halloran Residence Wallace Residence

#### **Churches**

Bible Center Church Addition and Renovations
Peoples Baptist Church Fellowship Hall Renovation
Cross Lanes United Methodist Church Addition
Blessed Sacrament Parish Hall
Bible Baptist Church of Danville
Madison United Methodist Church Addition
Emmanuel Baptist Church
First Baptist Church of Eleanor
Calvary United Methodist Church Addition and Renovations
Spring Hill Baptist Church Renovations
Maranatha Baptist Church (Sissonville) Renovations

#### **Health Care**

Greenbrier Clinic Endoscopic Suite

Mountaineer Diagnostic Imaging Center

Pleasant Valley Hospital

Emergency Services and Laboratory Renovations

Expansion to Medical Office Building

New Hydro-Therapy Facility

Entry Canopy

Hospice Administrative Office Building



#### Student Housing Complex and Dining Facilities Marshall University Huntington, West Virginia

Owner: Marshall University

One John Marshall Drive

Huntington, West Virginia 25755

Ron May, Acting Director of Facilities Planning and Management

304/696-6294

Size: 136,000 gsf Cost: \$28,848,893 Services Provided: Full A/E Completion Date: 2003

#### Classroom / Laboratory / General Support Building Eastern West Virginia Community & Technical College Moorefield, West Virginia

Owner: Eastern West Virginia Community & Technical College

1929 State Road 55

Moorefield, West Virginia 26836

Robert Sisk, President

304/434-8000

Size: 25,000 gsf

Cost: Est. \$5,500,000 Services Provided: Full A/E

Completion Date: Est. 10/2008

#### Virginia Thomas Law Center for the Performing Arts West Virginia Wesleyan College Buckhannon, West Virginia

Owner: West Virginia Wesleyan College

59 College Avenue

Buckhannon, West Virginia 26201

Pamela Balch, President

304/473-8181

Size:

19,500 gsf

Cost: Est. \$6,250,000

Services Provided: Full A/E

Completion Date: Est. 12/2008



#### Enhancements to Caperton Center Conference Center Addition Beckley, West Virginia

Owner: West Virginia Parkways, Economic Development and Tourism Authority

PO Box 1469

3310 Piedmont Road

Charleston, West Virginia 25325-1469

Greg Barr, General Manager

304/926-1900

Size: 17,000 gsf Cost: \$6,188,103

Services Provided: Full A/E Completion Date: 2003

## Lobby Renovations and Multiple Tenant Build-Outs Branch Banking & Trust

Owner: Branch Banking & Trust

1007 Bullitt Street

Charleston, West Virginia 25301 John Thomas, Property Manager

304/342-5156

Size: 10

100,000 gsf +

Cost: \$1,749,253 Services Provided: Architectural

Completion Date: Various Projects from 1999 - Present

## Kesner, Kesner & Bramble Charleston, West Virginia

Owner: Kesner, Kesner & Bramble

112 Capitol Street

Charleston, West Virginia 25301

Brent Kesner 304/345-5200

Size: 35,000 gsf Cost: \$1,089,352

Services Provided: Architectural

Completion Date: 2002

#### **HospiceCare Administrative Offices**

Owner: HospiceCare

1143 Dunbar Avenue

Dunbar, West Virginia 25064 Larry Robertson, Executive Director

304/696-6294

Size: 17,800 gsf Cost: Est. \$2,960,000

Services Provided: Architectural Completion Date: Est. 11/2008



#### **Go-Mart Corporate Offices** Gassaway, West Virginia

Owner: Heater Oil Company

PO Drawer D 915 Riverside Drive

Gassaway, West Virginia 26624

John Heater, President

304/364-8000

Size: 17,650 gsf \$2,017,269.16 Cost: Services Provided: Full A/E Completion Date: 2003

#### **Ayash Sport Center** Saint Albans, West Virginia

Owner: P.T.A. Land Company, Inc.

601 Sixth Avenue, Suite 200

St. Albans, WV 2177

Karl Ham, 304/722-9323

Size:

33,500 gsf

\$2,837,803 Cost:

Services Provided: Architectural

Completion Date: 2006

#### **Moses Factory Outlet** Corridor G Charleston, West Virginia

Owner: Moses Automotive

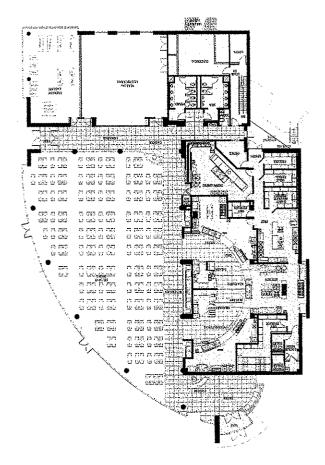
1406 Washington Street, East Charleston, West Virginia 25301

Bob Moses, Owner 304/343-5534

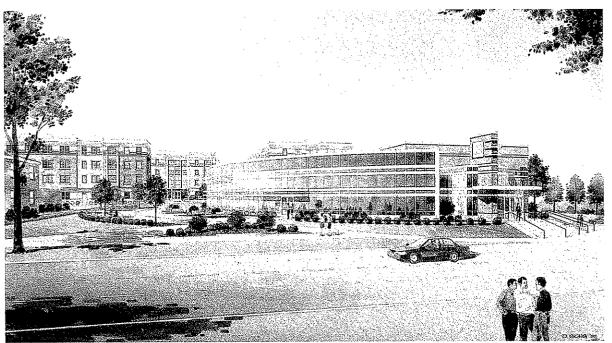
4,500 gsf Size: \$913,065 Cost:

Services Provided: Full A/E Completion Date: 2003



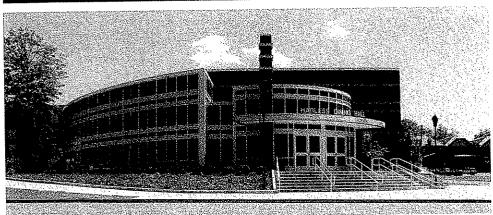


Dining Facilities - Plan

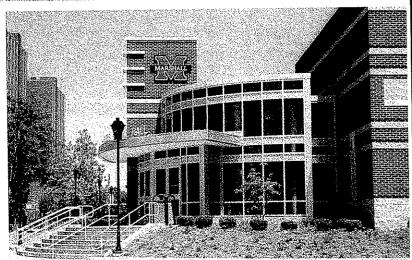


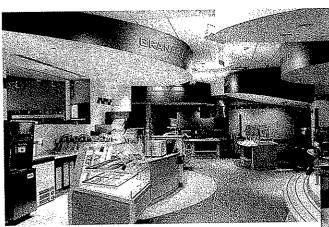
Marshall Student Housing - Dining Facilities

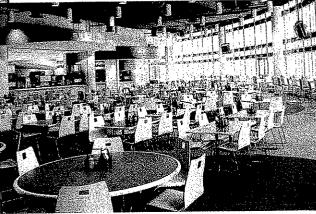




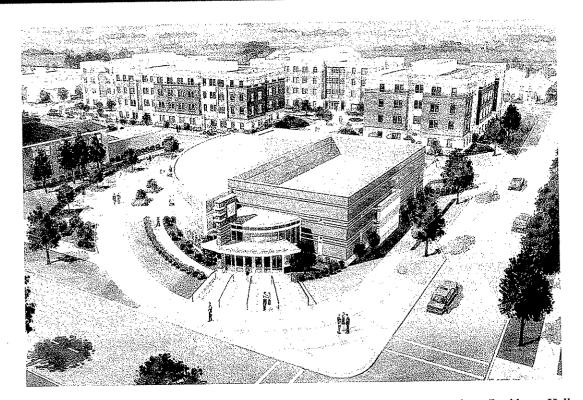
Marshall University
Dining Facility



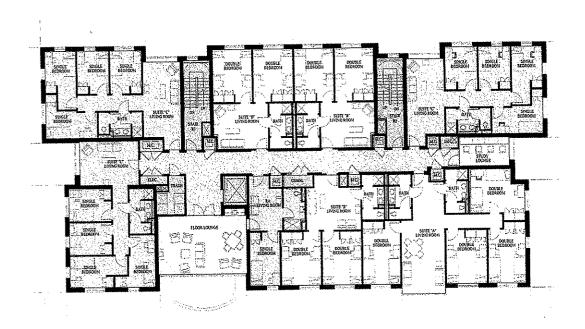








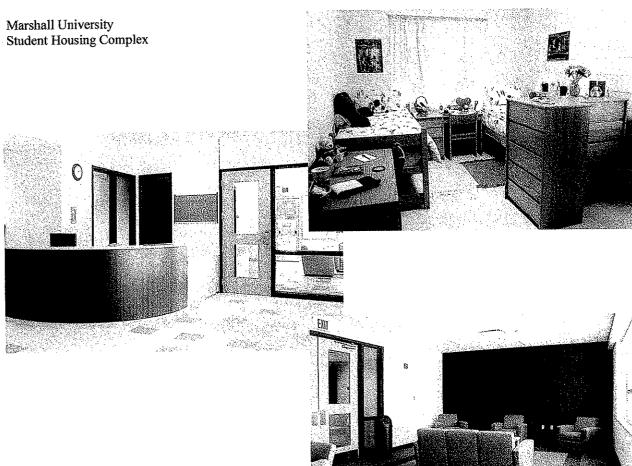
Marshall Student Housing - Residence Hall



Marshall Student Housing - Residence Hall Plan



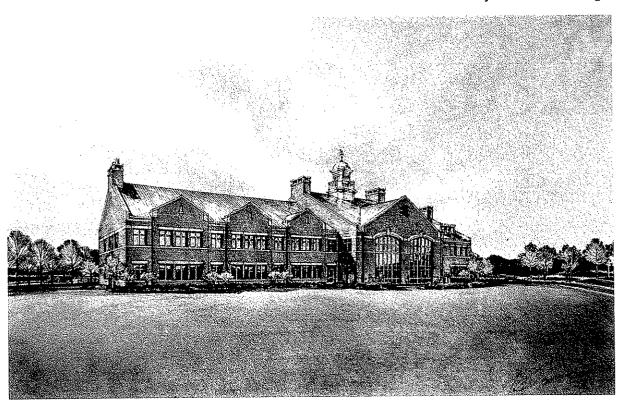








Eastern West Virginia Community & Technical College



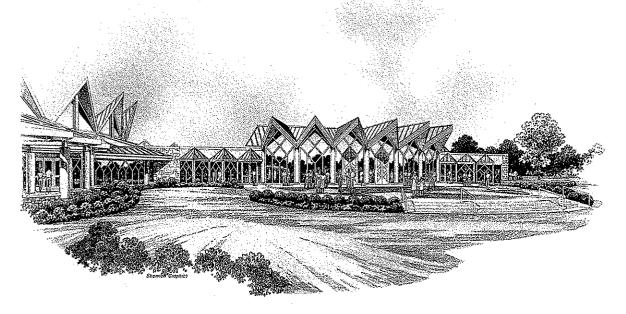




Virginia Thomas Law Center for the Performing Arts West Virginia Wesleyan College

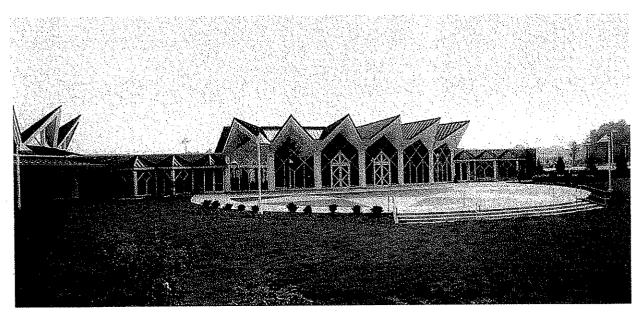






Rendering

Enhancements to Caperton Center (Tamarack)

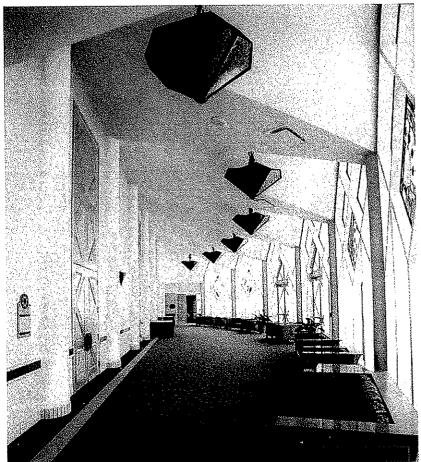


Completed Project





Caperton Center -Pre-Function Area



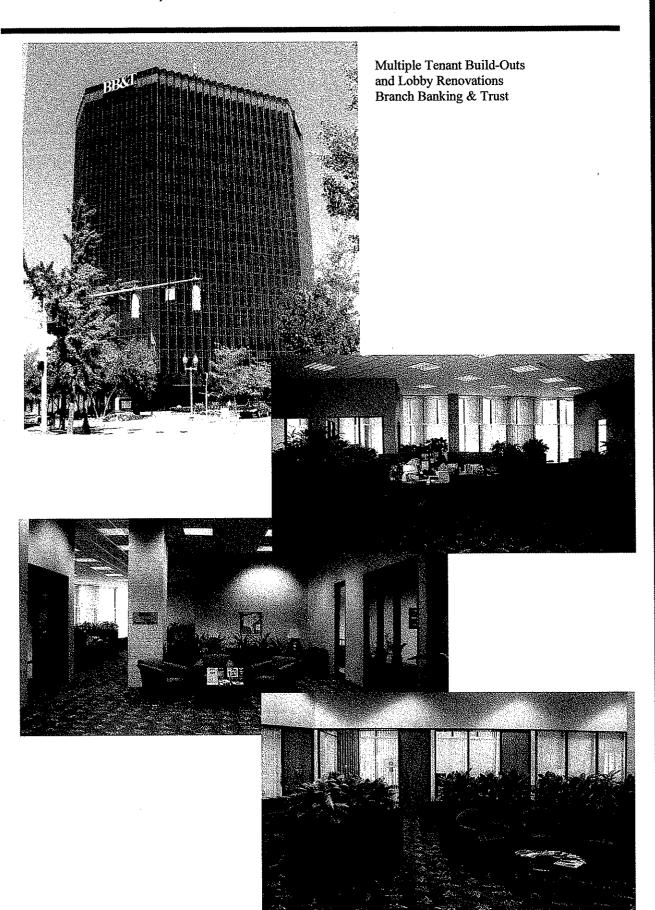




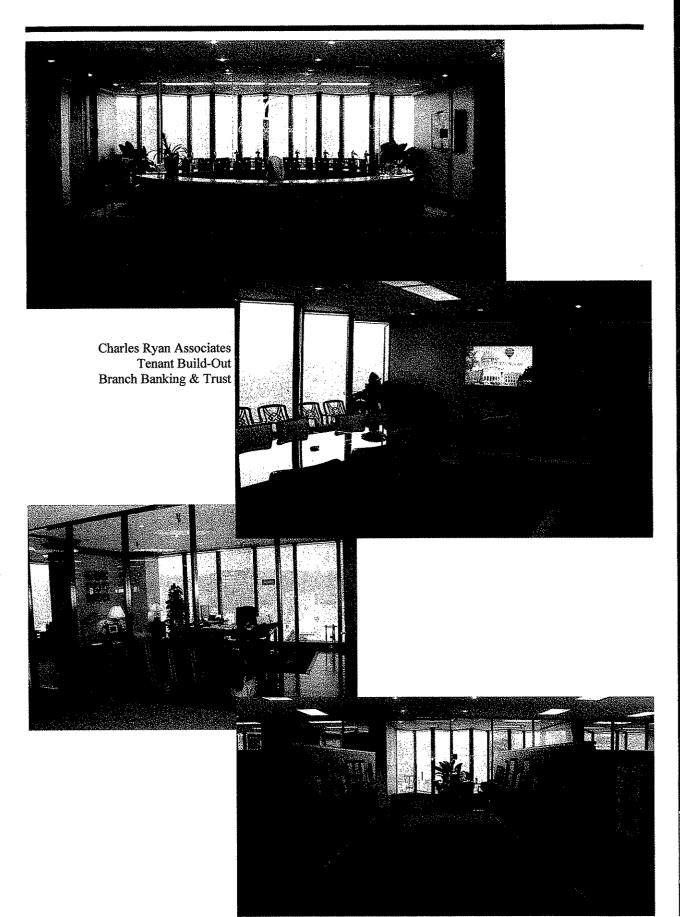
Caperton Center - Canopy



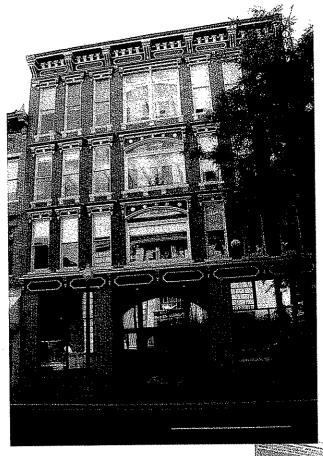






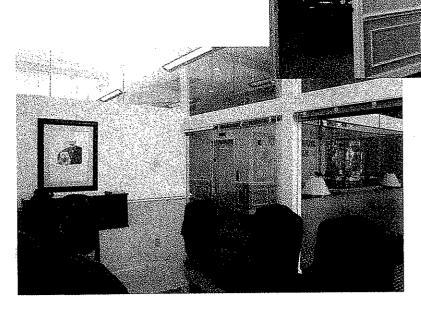






112 Capitol Street Kesner Kesner & Bramble





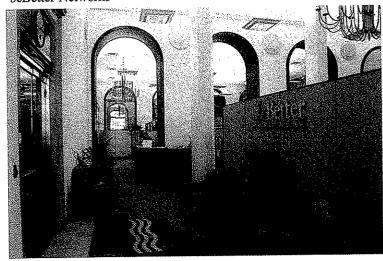




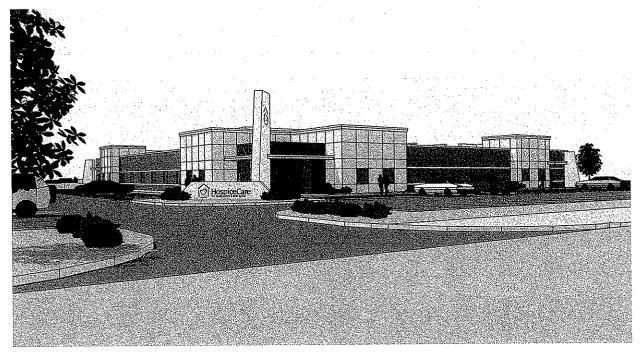
118 Capitol Street TSG Consulting



#### beBetter Networks



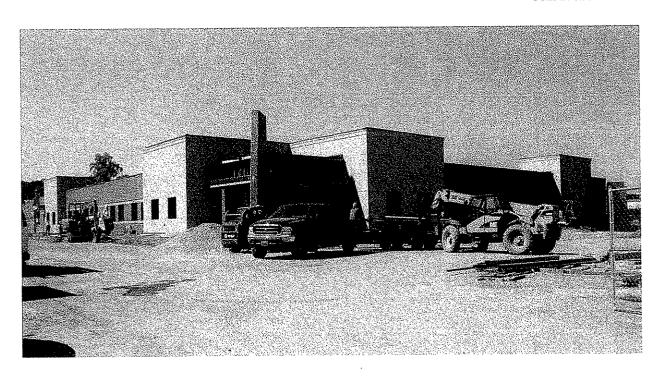




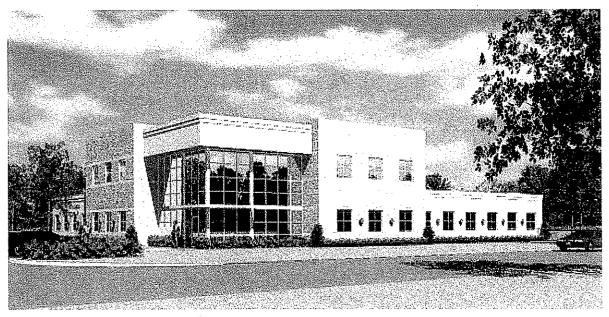
Rendering

### HospiceCare Administrative Offices

Construction Phase

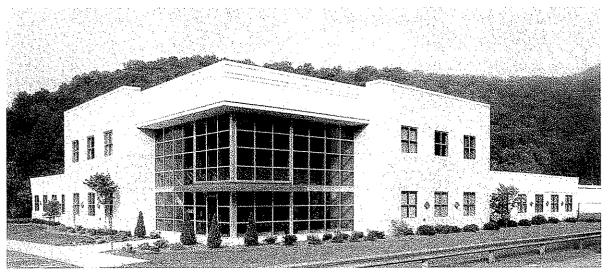






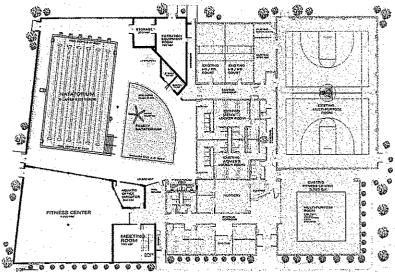
Rendering

Go Mart Corporate Offices

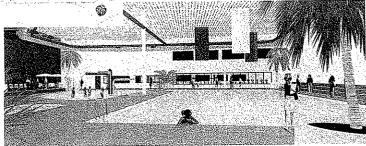


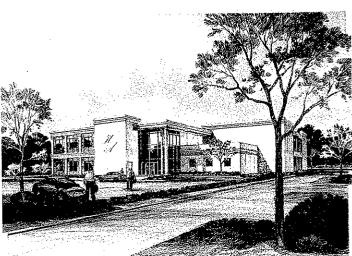
Completed Project



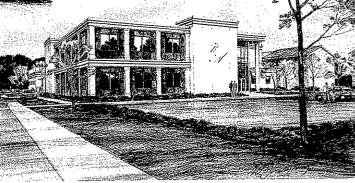


Tri County YMCA

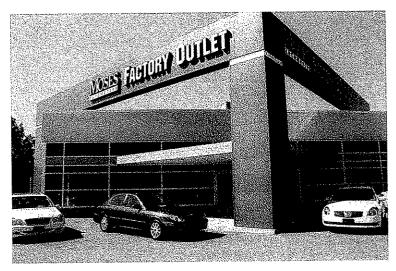




Ayash Sport Center







Moses Factory Outlet



Joe Holland Chevrolet



#### **BASTIAN & HARRIS, ARCHITECTS**

Ron May, Acting Director of

Facilities Planning and Management

Marshall University

One John Marshall Drive

Huntington, West Virginia 25755

Robert Sisk, Interim President

Eastern West Virginia Community and Technical College

1929 State Road 55

Moorefield, West Virginia 26836

Greg Barr, General Manager

West Virginia Parkways, Economic Development and Tourism Authority

PO Box 1469

3310 Piedmont Road

Charleston, West Virginia 25325-1469

Richard Donovan, Assistant Director of Facilities

West Virginia Higher Education Policy Commission

1018 Kanawha Blvd., East, Suite 700

Charleston, West Virginia 25301

Charles Wilson, Administrative Assistant

Facilities / Operations

Kanawha County Schools

3300 Pennsylvania Avenue

Charleston, West Virginia 25302

Clark Vickers, Director of Support Services

Pleasant Valley Hospital

2520 Valley Drive

Pt. Pleasant, WV 25550

David Sneed, Chief of Architectural Services

WV State Department of Education

**School Building Authority** 

2300 Kanawha Boulevard, East

Charleston, West Virginia 25311-2306

Lee Walker, Business Manager

**Bible Center Church** 

1111 Oakhurst Drive

Charleston, West Virginia 25314

John Thomas, Property Manager

**BB&T Corporate Facilities** 

1007 Bullitt Street

Charleston, West Virginia 25301

Larry Robertson, Executive Director

**HospiceCare** 

1143 Dunbar Avenue

Dunbar, West Virginia 25064

Phone: 304/696-6294

Phone: 304/434-8000

Phone: 304/926-1900

Phone: 304/558-0281

Phone: 304/348-6148

Phone: 304/675-4340

Phone: 304/558-2541

Phone: 304/346-0431

Phone: 304/342-5156

Phone: 304/768-8523

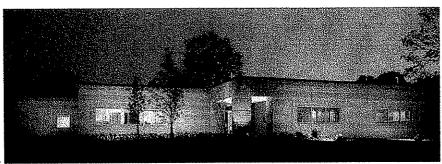


#### SCHEESER BUCKLEY MAYFIELD LLC

### Mechanical, Electrical, Civil and Telecommunication Consulting Engineers

Scheeser Buckley Mayfield LLC 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



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. In 2006, Christopher J. Schoonover, P.E. was named as Principal 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 LLC 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 LLC 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 LLC 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 LLC

#### **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

#### **Telecommunications Services**

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

#### **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

#### Types of Facilities

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

#### 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

#### **Mechanical Services**

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



## JAMES E. ECKMAN, P.E., LC, LEED AP PRESIDENT

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 was a member of the Institute of Electrical and Electronics Engineers for eight years and is currently an active member of the Electrical League of Northeastern Ohio and 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. Additionally, Mr. Eckman is registered with the EPA as a Greenlights Surveyor Ally and has completed and passed the Technical Knowledge Exam (TKE) administered by the IES on a national basis to gauge individuals 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 on 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.

In 2005, Jim received his Lighting Certification (LC) from the National Council on Qualifications for Lighting Professionals (NCQLP).



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

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:

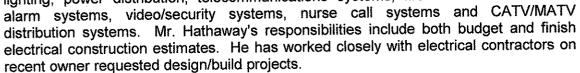
- Projects where SBM was the prime design professional hired by the Owner. Typically this
  has been for chiller plant/boiler plant or other type of main A/C system replacement. This
  work involved hiring the sub-consultants, preparing the budget/schedule, writing the "front
  end" specification documents 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

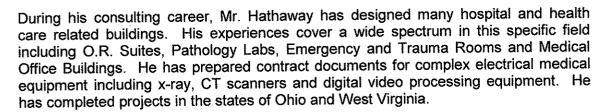
Mike is a LEED $^{\text{TM}}$  2.0 Accredited Professional and a member of ASHRAE, ASPE, NFPA and BOCA.



Mr. Hathaway attended The University of Akron where, in 1992, he earned his Bachelor of Science Degree in Electrical Engineering. While at The University of Akron, Mr. Hathaway accepted a position through the cooperative education program at the Veteran's Administration Medical Center in Brecksville, Ohio. During this engagement he gained knowledge of the construction industry.

After graduation, Mr. Hathaway began his career as a consulting engineer with Scheeser\*Buckley\*Mayfield, LLC. He has since been involved with all aspects of electrical design including: lighting, power distribution, telecommunications systems, fire





Mr. Hathaway is well versed in Window's NT and Autocad. He has extensive experience in the design of complex systems such as fire alarm, audio/video, telecommunications (LAN) systems, and CATV/MATV distribution systems. He is currently a member of the Illuminating Engineering Society (IES), Cleveland Section and has also served as Treasurer in past years.

Mr. Hathaway is registered in the State of Ohio, West Virginia, Kentucky and Florida.



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, wetland analysis and delineations and storm water management facilities. Design of storm water management facilities, both underground and above ground, and wetland. 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 civil engineering firm located in Independence, Ohio. There, he site 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, septic systems 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 Pickaway Correctional Institution Dormitories, Aultman Hospital 2010 expansion, St. Elizabeth Boardman Health Campus, Summa Green Health Campus. He attends local and national plumbing 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 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.



## VINCENT J. FEIDLER, P.E. ASSOCIATE - MECHANICAL ENGINEER

Mr. Feidler attended the Pennsylvania State University where he received his Bachelor of Architectural Engineering in 1996. His major emphasis while pursuing his degree was in HVAC Systems design. Vince received his Professional Engineering license in the State of Ohio in 2002.

During his years at Penn State, Mr. Feidler was actively involved in the student chapter of ASHRAE (American Society of Heating, Refrigeration, and Air Conditioning Engineers) and attended the annual ASHRAE convention in Atlanta, Georgia.

During his senior year, Mr. Feidler aided in the design of a 48,000 square foot youth center in Butler, Pennsylvania as well as a 150,000 square foot high school in DuBois, Pennsylvania.

Upon graduation, Vince joined the consulting firm of Scheeser Buckley Mayfield LLC in June of 1996. During this time, he was involved in numerous design projects where he performed load calculations, HVAC estimating, and system design for commercial, educational, and institutional clients in both Ohio and West Virginia. Vince is now a Project Manager and assists with the training of new engineers.

Mr. Feidler is an active member of the American Society of Heating, Refrigerating, and Air Conditioning Engineers.



#### JOSHUA J. ROEHM, PE, LEED AP, ASHRAE HFDP ASSOCIATE / MECHANICAL ENGINEER

Joshua attended the Pennsylvania State University where he received his Bachelor of Architectural Engineering Degree, emphasizing in Mechanical System design. He joined the consulting firm of Scheeser Buckley Mayfield LLC in July of 1996, where he has worked since his graduation.

Joshua received his State of Ohio Professional Engineering License in 2001. He became a LEED 2.1 Accredited Design Professional in July of 2005. He is also a full member of the American Society of Heating, Refrigeration, and Air Conditioning Engineers (ASHRAE). He earned his ASHRAE Healthcare Facility Design Professional Certification (HFDP) in September of 2007.



Joshua has extensive experience in all aspects of the design of mechanical systems for buildings, including advanced HVAC, Plumbing, and Fire Protection systems. He can be involved in the design from the early planning stages up through construction completion, performing all tasks that are required therein. He also acts as the Project Manager for his projects within the office, coordinating the design team's efforts to ensure a quality project, with emphasis on design deadlines and budget.

Some recent projects Joshua has worked on include the following:

Aultman 2010 – A major 300,000 square foot addition to Aultman Hospital in Canton, Ohio. This addition included the design of a rooftop mechanical penthouse that incorporated four air handling units, a chilled water plant, a heating water plant, steam boilers, exhaust fans, and domestic water heating equipment. The penthouse design allowed for the construction of the mechanical equipment to proceed before the building was built, thus aiding the schedule.

Akron Zoo Education Center – This building is a LEED<sup>™</sup> certified building. The design of the building incorporated many sustainable components, such as a geothermal well field, heat recovery equipment, and the use of heat pump loop water for humidity control. The design also needed to take into account the several species of animals that be housed at the facility; making sure their needs were met as well.

Camden Clark Memorial Hospital South Addition – This is the first major addition to this Hospital, located in Parkersburg, West Virginia, in several years. The addition incorporated 11 operating rooms, critical and normal intensive care units, central sterile, endoscopy suite, and other related functions. Also, a new chiller plant and new boiler were added to the facility to account for the needs of this addition.



## DAVID HOLBROOK ELECTRICAL ENGINEER

Mr. Holbrook attended Youngstown State University where he received his Bachelor of Science in Electrical Engineering.

He began his engineering career working for and Electrical Contractor in Girard, Ohio. While employed there, he designed electrical systems for commercial, industrial, and retail sectors. His responsibilities included all aspects of electrical design, preliminary design calculations, site visits, feasibility studies, and architectural coordination meetings. Design experience at this level included lighting and power systems, energy management systems, conveying systems, and retail fire alarm systems. His other responsibilities included estimating, time-and-material project managing, infrared thermography, and PLC troubleshooting.



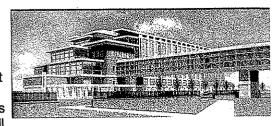
Mr. Holbrook joined Scheeser Buckley Mayfield LLC in October of 2001. Since joining the electrical department, he has completed a wide variety of projects. He has worked on a variety of Healthcare projects including major hospital additions, Heart Centers, Outpatient Medical Imaging Centers, Minor renovation projects. Other projects he has been involved with included University, correctional, Medical Office, Utility, Library, and Hospice facilities. He has been actively involved in the design of Essential Power Systems from the most basic to Tier 4 redundant power systems, Medium and Low Voltage Switchgear Design, Generator Plant design including Low and Medium Voltage Paralleling systems, CCTV, Fire Alarm Systems, and also advanced lighting design. Mr. Holbrook has become a registered LC by passing the "Lighting Certified" examination from the National Council for the Qualifications of Lighting Professionals (NCQLP). Recently, two of his projects were published by Healthcare Design magazine, Focal Point Lighting, and Kirlin Lighting.



Marshall University Bio-Technology Building Huntington, West Virginia

Construction Cost: \$42,500,000

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 3<sup>rd</sup> Avenue to the existing Science Building. The project shall have a 300 seat auditorium, tiered classrooms, faculty offices, animal quarters, student teaching labs and labs dedicated to pure research. The project will



also have a BSL3 lab space. Project is currently under construction.

Marshall University
Student Housing and Dining Hall
Huntington, West Virginia
Construction Cost: \$28,000,000

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

Cabell Huntington Hospital Dialysis Clinic Huntington, West Virginia Construction Cost: \$2,800,000

Scheeser Buckley Mayfield provided mechanical and electrical design services for the Dialysis Clinic. This 15,000 sq. ft. Dialysis Clinic was constructed behind the hospital and provides dialysis service for the Tri-State area. The project was designed to be extremely user friendly and comfortable for the dialysis patients who need to endure multiple trips potentially to the facility each



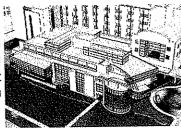
week. The building has 30 dialysis stations, doctors' offices, and support spaces. The HVAC systems for the building consisted of a roof mounted air handling unit, multiple hot water boilers and direct digital controls. The electrical system for the building consisted of a redundant power source arrangement with a generator backup. A conduit path system was designed to connect this new building with the existing hospital.



Cabell Huntington Hospital
Joan C. Edwards Comprehensive Cancer Center
Huntington, West Virginia

Construction Cost: \$18,000,000

This comprehensive cancer center is part of the Edwards Foundation at Marshall University. Project consists of a 50,000 sq. ft. addition situated in front of Cabell Huntington Hospital and the Joan C. Edwards School of Medicine. The building layout consists of a basement, ground and first floor along with a connector bridge to connect the addition to the existing hospital.

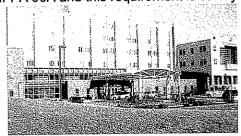


The building will function as a somewhat stand-alone entity on the medical center campus and therefore all parties involved prefer to have the utilities for the building separated from the existing hospital and medical school building. To this end, a new water service, gas service entrance and electrical service shall be designed for this addition.

The electrical service shall be extended from the existing high-voltage switchgear to create a new unit sub in the basement of the new addition.

The HVAC system for the building consists of central station air handling units located in the basement of the facility, a modular packaged boiler heating water plant, water cooled helical screw chillers and a direct digital control system. One of the air handling units in the basement shall be dedicated to serving the egress corridors in the building. Use of an air handling unit to serve the egress corridors is a requirement particular to NFPA 90A and this requirement is strictly

enforced in the state of West Virginia. Having an air handling unit dedicated strictly for egress corridors increases the degree of difficulty in duct routing in the hospital tremendously especially when there are low floor-to-floor conditions such as in this cancer hospital addition. The air distribution system consists of VAV terminals with hot water reheat coils. Perimeter areas in the building with large amounts of glazing will have a separate radiant panel heating system.



Cabell Huntington Hospital
Bed Tower
Huntington, West Virginia
Construction Cost: \$55,000,000

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.

Cabell Huntington Hospital Emergency Room Renovation Huntington, West Virginia Construction Cost: \$800,000

Scheeser Buckley Mayfield LLC provided mechanical and electrical design services for the emergency room renovation which consisted of renovating about 15,000 sq. ft. of the hospitals existing emergency room to provide for a fast track area and also to improve traffic flow within the emergency room. Mechanical and electrical work consisted of extending and revising the existing systems within the emergency room.



Marshall University
Twin Towers Dormitory
Huntington, West Virginia
Construction Cost: \$460,000

Performed electrical engineering services to upgrade the fire alarm system in this dormitory building that consist of two (2) 16 story towers with a common kitchen/cafeteria/ recreation area on the ground level. Work was performed on this project in two phases. Phase I was started in 1995 and consisted of replacing the existing 120 volt, hardwired fire alarm system in the east tower during the summer break. The west tower was completed the following summer. Construction schedule for both phases was extremely aggressive due to the critical housing situation on campus. Work



had to be completed in order for the resident services department to clean-up the spaces in time for students to move in for fall semester. This required the design of the new fire alarm system to be modular in nature thereby allowing the original building fire alarm system to operate and be monitored by the new fire alarm system for a period of time. Also, extensive field checking was done to verify existing fire alarm conduit routing in sizes for incorporation into the new fire alarm system design. To minimize maintenance cost due to vandalism, zoned type ceiling smoke detectors were installed in each dorm room. These are considerably cheaper than the addressable type ceiling type smoke detector. Each floor was then zoned into four quadrants no more than five rooms per zone. Each hardwire detector was also provided with an integral buzzer to notify the occupant of smoke. All common area smoke detectors were designed as addressable type devices with individual annunciation. Again, existing fire alarm conduit was reused wherever possible. A new fire alarm transponder panel was installed on every other floor. The device from the floor above were monitored by the stand alone transponder panel along with the device on that floor. All the transponder panels were tied together vie the communication/data circuit and tied into the main fire alarm control panel located at the main desk in each tower. The two main fire alarm control panels were then tied together with another communication/data circuit, Each main fire alarm control panel and each transponder could act as a stand alone fire alarm system if the communication/data circuit was interrupted. Extensive fire alarm work was done in the kitchen area to shutdown kitchen hoods and associated make-up air handling units in the event of fire. Also, the fire suppression system for the hoods was monitored to annunciated discharge of the fire suppression system in the event of a fire.

Marshall University
Holderby Hall Renovations
Huntington, West Virginia
Construction Cost: \$2,800,000

Scheeser Buckley Mayfield LLC provided mechanical and electrical engineering design for the renovation of the existing food service on the first floor which was converted to the New offices for Residence Services. Electrical design included service and distribution upgrade, fire alarm upgrade, and an elevator upgrade. A new stand pipe and sprinkler system was also installed.

Marshall University
Buskirk Hall
HVAC and Electrical Upgrade
Huntington, West Virginia
Construction Cost: \$1,000,000

Project consisted of installation of 100 thru-the-wall air conditioning units with hydronic heating coils in this six-story residence hall. A new electrical service was designed to support the new HVAC equipment. The boiler plant was upgraded with new pumps and DDC controls.



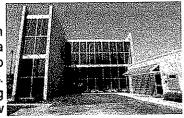


Marshall University
Twin Towers Elevator Modernization
Huntington, West Virginia
Construction Cost: \$1,204,000

Performed mechanical and electrical engineering for the modernization of six (6) 50 hp, 480 volt, 3 phase, gear traction, passenger elevators in the Twin Towers Dormitory Building. SBM was the lead consultant for this project and was specifically responsible for the associated electrical design and for hiring and coordinating the work of the elevator subconsultant. Specifically, the electrical portion of this project included the demolition of the electrical lighting and receptacles in the elevator equipment room. Power for each of the six elevators was disconnected from the associated controllers back to the power panel in each penthouse. New elevator disconnect switches and associated feeders were designed. The existing panel feeder did not have an equipment grounding conductor. It was determined during the study phase of the project that a new feeder with properly sized equipment ground should be provided. A new feeder was provided in existing conduit from the main 480 volt switchboard on the main level to the power panelboard in each penthouse. New lighting and receptacles were designed for the equipment room. A new emergency power branch circuit and disconnect was provided for the lighting in each cab. New telephone wiring was also designed for each cab telephone. The existing building fire alarm system that was designed by SBM several years prior was modified to incorporate elevator recall functions for the modernized elevators. This work included the relocation and reprogramming of existing addressable ceiling smoke detectors in each elevator lobby as well as control relays in each elevator penthouse. All of the elevator modernization work was defined in Division 14 specifications. Work of this section was incorporated into the total project specifications that were created by SBM. This project also included the upgrade of the building's electrical service and distribution system. This portion of the project included the removal of the existing incoming 12,470 volt primary cabling, switching and distribution throughout the building. Building originally had a mixture of utility provided and owner provided distribution equipment and cabling. Much of this work was done using outdated utility safety code requirements. Much of the original installation did not meet current National Electric Code standards. The entire service and distribution system was replaced. Utility provided equipment ended at a new metering cubicle installed in the main electrical room. A new 2000 kva, 480 volt, 3 phase, 3 wire substation and a new 500 kva, 208/120 volt, 3 phase, 4 wire substation were installed. These substations were used to backfeed existing distribution panels (whose interiors were completely replaced under this project). The 480 volt substation also feeds two 1,600 amp busduct risers up through the building. Bus plugs installed on every third floor feed new stepdown transformers that in turn backfeed existing distribution. Due to the high use of this building, there was minimal time for the contractor to perform the removal of the existing equipment and installation of the new equipment. Because of this, our documentation showed specific temporary power requirements to facilitate the changeover. Mechanical design included the conditioning of both elevator penthouses as well as ventilation for the main electrical room. For budgetary reasons, the project was broken down into base bid, which included the electrical service and distribution upgrade and three alternates. Two of the alternates were for the modernization of the elevators in the east and west towers, and the third alternate was for all of the associated mechanical upgrade for the elevator modernization work.

Marshall University
Forensic Science Program
Huntington, West Virginia
Construction Cost: \$1,000,000

Scheeser Buckley Mayfield performed mechanical and electrical design services for renovations, converting the existing field house building into a forensic research lab. Mechanical design included four single zone rooftop air handling units, furne hood exhaust system, and new public restrooms. Rooftop air handling units were equipped with hot gas reheat coils providing the user with a means of adjustable high limit humidity control. A new automatic sprinkler system was designed for entire building.





Marshall University
Twin Towers Dormitory
1999 Core Ventilation and
Fire Protection Upgrade
Huntington, West Virginia
Construction Cost: \$1,000,000

SBM was retained as the lead design professional to engineer the upgrade to the Twin Towers core ventilation system and to sprinkle floors two through fifteen in both towers. This project, like all other Marshall University dormitory projects on which SBM was the lead design professional, required that the project be held rigidly to both the established budget and the established design and construction schedule in order for the project to be successful. This particular project had a very short construction window during the summer of 1999 in which all of the work had to be completed before the start of the fall 1999 school year. Essentially, the work needed to be 100% complete no later than the middle of August, 1999. The work also needed to be sequenced with on-going events that were scheduled to take place in the Twin Towers Dormitory over the summer of 1999. This project was both a budgetary and scheduling success. This project was also a success from an installation and functionality standpoint.

The HVAC portion of the project consisted of removing the existing supply fan and exhaust fan which furnished make-up air and exhaust air to the shower rooms, toilet rooms and laundry on floors two through fifteen in the Twin Towers. A new HVAC system was designed to provide tempered and dehumidified air to these core areas of the building. The air handing equipment was designed and pre-purchased by the University with installation specified to be by the contractor. The HVAC equipment is located on the roof of the Twin Towers building which is 165 feet above street level. The equipment was specifically designed to be shipped in multiple sections to allow the equipment to be rigged into place with a 500 ton crane which was locally available. The air handling equipment used two plate frame heat exchangers to provide "neutral" air to the core areas of the building. A technical feature utilized was the use of hot gas reheat to temper the dehumidified air up to approximately 72 degrees F.

The fire protection portion of the project involved high level discussions with the West Virginia State Fire Marshall to firm up the approach for the sprinkling of the Twin Towers. The end result of these discussions resulted in an agreement being reached, wherein a sprinkler system was designed for the Twin Towers but the existing standpipe system was not upgraded. This up front discussion with the authority having jurisdiction resulted in the University saving approximately \$500,000 because a fire pump and associated stand-by generator were not required. The fire protection construction work consisted of the following elements:

- The installation of a new 6" fire service entrance.
- The installation of a new 6" fire service riser up through the core of each tower.
- The University elected to bid as a deduct alternate the use of PVC fire protection piping for the smaller branch piping to be installed on each floor level. The deduct price to use the CPVC fire protection piping was significant and it also resulted in significant time savings during the installation. The University elected to accept the deduct alternate and to use the CPVC fire protection piping for the fire protection piping on floors two through fifteen.



St. Mary's Hospital Ambulatory Care Building and South Addition Huntington, West Virginia

Construction Cost: \$17,000,000

Ambulatory Care: The design for this 60,000 sq. ft. ambulatory care building including approximately 20,000 sq. ft. of hospital surgery prep space and 40,000 sq. ft. of medical office tenant lease space. Electrical features designed into this building included a 100 kW natural gas emergency generator with a custom roof top enclosure, complete addressable fire alarm system, a microprocessor audiovisual nurse call system, and complete cable TV infrastructure. Other features include electrical accessibility for a portable MRI and CT scanner tractor trailer units, the mechanical design included three (3) custom roof top units coupled with pneumatic controls for cost effective heating/cooling systems. Unique features also involved with this room included isolation rooms and a complete medical gas system for minor procedure rooms. Elevator design included power wiring for each elevator controller from the buildings distribution system as well as cab lighting. Elevator breakers were provided with shunt trip capabilities if the shafts, machine rooms and pits were sprinklered. Controllers were also tied in to the building fire alarm system as required for elevator recall (fireman's service functions). All functions were designed to NFPA, OBBC and ANSI/ASME codes and requirements that were applicable at the time of design.

South Addition: This project involved adding two stories of 40,000 sq. ft. of additional surgery support, operating rooms and mechanical equipment space to the existing St. Mary's facility. Electrical design included a new 4160 volt service entrance which was back fed with the existing 4160 volt service entrance for two sources of utility power, step down substation distribution, division of the essential power system and extension of the existing emergency distribution, and isolated power panels in each of the additional OR's. Special features included mechanical electrical coordination to reduce emergency loads by limiting the output of the air handling units in the emergency condition. In addition to electrical design of the new space, strategic loads located in the facility were backfed from the new service reducing the existing limit capacity electrical service.



#### SCHEESER BUCKLEY MAYFIELD LLC COLLEGE / UNIVERSITY / TECHNICAL INSTITUTION PROJECT EXPERIENCE

#### **BOWLING GREEN STATE UNIVERSITY**

Bowling Green, Ohio

#### **CONCORD COLLEGE**

Athens, West Virginia

#### **MALONE COLLEGE**

Canton, Ohio

#### **MOUNT UNION COLLEGE**

Alliance, Ohio

#### **MUSKINGUM COLLEGE**

New Concord, Ohio

#### **OHIO STATE UNIVERSITY**

Columbus, Ohio

#### SHEPHERD COLLEGE

Shepherdstown, West Virginia

#### THE UNIVERSITY OF AKRON

Akron, Ohio

#### **WALSH COLLEGE**

Canton, Ohio

#### **WEST VIRGINIA UNIVERSITY**

Morgantown, West Virginia

#### YOUNGSTOWN STATE UNIVERSITY

Youngstown, Ohio

#### **CLEVELAND STATE UNIVERSITY**

Cleveland, Ohio

#### KENT STATE UNIVERSITY

Kent, Ohio

#### MARSHALL UNIVERSITY

Huntington, West Virginia

#### **MUSKINGUM AREA TECHNICAL COLLEGE**

Zanesville, Ohio

### NORTHEASTERN OHIO UNIVERSITIES COLLEGE OF MEDICINE

Rootstown, Ohio

#### **OHIO UNIVERSITY**

Athens, Ohio

#### STARK STATE TECHNICAL COLLEGE

Canton, Ohio

#### THE UNIVERSITY OF TOLEDO

Toledo, Ohio

#### **WEST VIRGINIA STATE COLLEGE**

Institute, West Virginia

#### **WEST VIRGINIA WESLEYAN**

Buckhannon, West Virginia



ALBAN/ANDREWS HEIGHTS/ANNE BAILEY FOLLANSBEE MIDDLE SCHOOL **ELEMENTARY SCHOOLS** Kanawha County, West Virginia

**AUDITORIUM RENOVATIONS (5 SCHOOLS)** Kanawha County, West Virginia

BARBER ELEMENTARY SCHOOL Akron, Ohio

**BEACHWOOD SCHOOLS** Cleveland, Ohio

**BETTY JANE ELEMENTARY SCHOOL** Akron, Ohio

**BROOKE HIGH SCHOOL** Brooke County, West Virginia

**BUCHTEL HIGH SCHOOL** Akron, Ohio

CARROLL HILLS TRAINING CENTER Coshocton, Ohio

**CASE ELEMENTARY SCHOOL** Akron, Ohio

**CENTRAL ELEMENTARY** Saint Albans, West Virginia

CENTRAL HOWER HIGH SCHOOL Akron, Ohio

DAVID HILL ELEMENTARY SCHOOL Akron, Ohio

**EAST HIGH SCHOOL** Akron, Ohio

**ELLET HIGH SCHOOL** Akron, Ohio

**ESSEX ELEMENTARY SCHOOL** Akron, Ohio

**FAIRLAWN ELEMENTARY SCHOOL** Akron, Ohio

**FAIRLESS HIGH SCHOOL** Navarre, Ohio

**FIRESTONE HIGH SCHOOL** Akron, Ohio

Brooke County, West Virginia

**GARFIELD HIGH SCHOOL** Akron, Ohio

GOODRICH JR. HIGH SCHOOL Akron, Ohio

**GOODYEAR MIDDLE SCHOOL** Akron, Ohio

HATTON ELEMENTARY SCHOOL Akron, Ohio

HOTCHKISS ELEMENTARY SCHOOL Akron, Ohio

HYRE JR. HIGH SCHOOL Akron, Ohio

**JACKSON HIGH SCHOOL** Canton, Ohio

**JACKSON MIDDLE SCHOOL** Canton, Ohio

JACKSON SAUDER ELEMENTARY Canton, Ohio

KENMORE HIGH SCHOOL Akron, Ohio

KING ELEMENTARY SCHOOL Akron, Ohio

LITCHFIELD MIDDLE SCHOOL Akron, Ohio

MANCHESTER MIDDLE SCHOOL Akron, Ohio

MARLINGTON MIDDLE SCHOOL Alliance, Ohio

MASON ELEMENTARY SCHOOL Akron, Ohio

McEBRIGHT ELEMENTARY SCHOOL Akron, Ohio

McKINLEY HIGH SCHOOL Canton, Ohio

**MILLER BUILDING** Akron, Ohio



#### **NORTH HIGH SCHOOL**

Akron, Ohio

#### **OLD TRAIL SCHOOL**

Akron, Ohio

#### **PERKINS MIDDLE SCHOOL**

Akron, Ohio

#### **RANKIN ELEMENTARY SCHOOL**

Akron, Ohio

#### **RITZMAN ELEMENTARY SCHOOL**

Akron, Ohio

#### **RIVERSIDE HIGH SCHOOL**

Kanawha County, West Virginia

#### **ROBINSON ELEMENTARY SCHOOL**

Akron, Ohio

#### SCHUMACHER ELEMENTARY SCHOOL

Akron, Ohio

#### **SEIBERLING ELEMENTARY SCHOOL**

Akron, Ohio

#### SMITH ELEMENTARY SCHOOL

Akron, Ohio

#### STONEWALL JACKSON MIDDLE SCHOOL

Charleston, West Virginia

#### **WALSH JESUIT HIGH SCHOOL**

Akron, Ohio

#### **WAYNEDALE HIGH SCHOOL**

Apple Creek, Ohio

#### **WELLSBURG PRIMARY SCHOOL**

Brooke County, West Virginia

#### **WOODRIGDE MIDDLE SCHOOL**

Cuyahoga Falls, Ohio



# STEVEN SCHAEFER ASSOCIATES, INC. Consulting Structural Engineers

Steven Schaefer Associate's knowledge of building codes allows us to select the most appropriate design parameters for optimal structural efficiency and performance, to meet your budget, and avoid excessive construction costs. Clear and well-detailed construction documents take time up front but result in lower construction bids, fewer change orders and faster construction.

We have worked on many LEED® certified projects, providing design options to our clients that offer different levels of sustainability. Our priority is getting involved in the process as early as possible – allowing for integrated design, early definition of the owner's goals, and the level of certification they wish to achieve. From a structural standpoint, we look at the percentage of recycled steel, concrete options, and other available sustainable materials to achieve the owner's LEED® goals. Our internal efforts include technical office meetings to review green materials and design options, recycling programs, and Green Binders to all staff which contain frequently updated materials on the structural aspects of LEED® design.

Our firm has invested extensively in Revit<sup>®</sup> technology. We have a dedicated, trained team of engineers and detailers that are able to provide 3-D designs in Revit<sup>®</sup> and contribute to a building information modeling (BIM) project that includes all components and team members.

Founded in 1976, our firm is licensed in every state with thirty-six engineers and a drafting staff of sixteen. We've seen our size grow along with our experience, knowledge and capabilities – giving us the ability to meet your deadlines and the flexibility to respond to change. We have earned a reputation for providing quality documents for projects ranging from simple to complex building structures and provide all aspects of structural engineering – planning, design, inspection, investigation.

Steven Schaefer Associates...We design solutions.



James R. Miller, P.E., S.E.



Edward W. Schwieter, P.E., S.E. Vice President, Technical Leader



J. Greg Sliger, P.E. Principal, Team Leader



Steven E. Schaefer, P.E. Chairman of the



Mike A. Ciprian, P.E. Team Leader



Robert C. Rogers, P.E., S.E. Team Leader



Greg J. Riley, P.E. Team Leader



John R. Ashbaugh, P.E. Team Leader

### J. GREGORY SLIGER, P.E.

Principal, Team Leader



Joined Steven Schaefer Associates in 1998

#### Previous Position:

Lantz Jones & Nebraska, Inc. Project Engineer, 1980 - 1998

#### Education:

MS Civil Engineering University of Cincinnati (1980) BS Civil Engineering University of Cincinnati (1979)

#### Registrations:

Ohio, Kentucky, West Virginia, Texas, Utah

#### Affiliations:

American Society of Civil Engineers, American Institute of Architects – West Virginia, American Concrete Institute, Concrete Reinforcing Steel Institute, Structural Engineers Association of Ohio

As team leader, Mr. Sliger oversees the work of his entire technical team. In this role, he has worked on projects of varying sizes, complexity and materials. He both contributed to the structural design and acted as the Project Review Engineer on all of the following projects.

#### Experience:

Kanawha County Schools Renovation Projects - Kanawha County, WV Auditorium Renovations at five area high schools and Addition and Renovations to Horace Mann Middle School.

Marshall University Robert C. Byrd Biotechnology Science Center - Huntington, WV The Center will house 144,000 sq ft of laboratory spaces, offices for faculty and staff, two auditoria, animal holding rooms, and support services.

Marshall University Student Housing - Huntington, WV Student housing and dining complex with housing for 500 students and dining facilities for 300. Student housing is provided in four, 4-story residence halls enclosing approximately 160,000 sq ft. The residence halls are framed with precast concrete floor plank bearing on concrete masonry walls. The roof of the dining facility is framed with steel joints and beams bearing on concrete masonry walls and steel columns.

Marshall Clinical Outreach & Education Center - Huntington, WV This 5-story building and adjacent parking structure expands the teaching space and services currently offered by the School of Medicine by 80,000 sq ft.

Marshall University Forensic Science Center - Huntington, WV Two-story 8,000 sq ft addition to the existing 1-story masonry Forensic Science Center. Structure is a steel frame enclosed with precast concrete wall panels, glass, and aluminum curtainwall. Foundation system consists of shallow spread footings.

Marshall University Erikson Alumni Center - Huntington, WV This planned 3-story 22,000 sq ft building will include a large 200-seat meeting room that can be subdivided into three smaller rooms, and an open terrace on the 3rd floor.



Education:

BS Civil Engineering University of Cincinnati (1991)

Registrations:

Ohio, Indiana, Kentucky, Michigan

Affiliations:

International Concrete Repair Institute American Institute of Steel Construction Structural Engineers Association of Ohio

Eric has been with Steven Schaefer Associates for ten years and works on a variety of our larger projects including hotels, schools, retail chains, and commercial properties. Eric leads a team of dedicated engineers and drafters, acting as both project manager and mentor. He is exceptional in his recommendation of the best structural systems for our client's visions – including creative ways to build, cost savings and overcoming challenges. Eric plays a vital role on every development team with his attention to detail and collaboration with all team members.

#### Experience:

Montgomery Elementary School - Montgomery, OH

Stewart Elementary / Princeton City Schools - Cincinnati, OH

Sharonville Elementary - Cincinnati, OH

Evendale Elementary - Cincinnati, OH

Felicity High School - Cincinnati, OH

Kroger Stores - Ohio, Kentucky, Indiana, Michigan, Illinois

La-Z-Boy Stores - Beavercreek, OH

Long Cove Bridge - Cincinnati, OH

Glenwood Gardens - Woodlawn, OH

Hilton Garden Inn - Gulfport, MS

### RYAN M. KONST, P.E. Project Engineer since 2001



Education:

BS Civil Engineering University of Cincinnati (2001)

Registrations:

Ohio, Kentucky (pending), West Virginia (pending)

Affiliations:

American Society of Civil Engineers (currently Secretary), American Institute of Steel Construction

#### Experience:

Marshall University Robert C. Byrd Biotechnology Science Center – Huntington, WV The Center will house 144,000 sq ft of laboratory spaces, offices for faculty and staff, two auditoria, animal holding rooms, and support services.

Kings Daughters Cardiac / The Heart and Vascular Center – Ashland, KY The \$43.5 million five-story center is the third phase of a major expansion of the KDMC in Ashland, KY. The Cardiac Services Building has a foot print of approximately 40,000 sq ft per floor with a total of 200,000 sq ft for the first five floors. The steel frame has been designed and can be expanded to 10 floors for a total of 400,000 sq ft.

Kings Daughters Medical Center – Medical Plaza Building B – Ashland, KY This medical office building has a foot print of approximately 19,000 sq ft. Four floors were constructed initially, but the building frame has been designed for the potential addition of six additional floors enclosing approximately 114,000 sq ft for a total of 190,000 sq ft.

TMH Medical Office Pavilion – South Charleston, WV A new five-story 86,000 sq ft medical office building with a two-story 17,000 sq ft wing connecting to the existing hospital. Provisions were made for a future five-story clinical wing adjacent to the medical office building.

University of Cincinnati Physicians Medical Office Building – West Chester, OH Structural design of a new 80,000 sq ft three-story medical office building. The building is part of a 75-acre medical service campus and commercial development complex.

LEE COLLEGE DORMITORY, Cleveland, TN

Structural design of a 26,000 square foot dormitory with partial second floor. The building is comprised of bar joist and wood truss roof framing, pre-cast concrete floor framing, and load bearing masonry walls on simple spread footings. Facilities include gym, racquetball courts, classrooms, and lounge area.

XAVIER UNIVERSITY LEDGEWOOD AVENUE DORMITORY, Cincinnati, OH

Provide structural engineering for a new 200-bed college dormitory with 72,000 square foot in the four stories plus basement. Dorm structure consists of Flexicore pre-cast concrete floor slabs and load bearing reinforced masonry walls with exterior brick veneer. Site work included cast-in-place concrete underground storm water detention tank. In addition to dorm rooms, the facility includes lounges, recreation and meeting rooms. The building also has two canopies at the main entrance and a wood and steel frame mansard structure around the perimeter. The mansard has hip configuration with several gable dormers.

MIAMI UNIVERSITY STUDENT DEVELOPMENT CENTER, Oxford, OH

Structural design of the new 23,000 square foot student development center located at Miami University. In keeping with the university architecture, Neo-Georgian, the two-story center will use red brick and white split-face concrete masonry units with cast stone accent details. Upon entering the main level you will notice the rotunda which allows access to either the Strength and Conditioning wing or the Academic wing. The roofs covering the two wings are simple shallow hips with the cylindrical-shaped lobby area between them. Skylights are used to cap the roofs to allow natural daylight in. Large areas of glass are used throughout the building to take advantage of the view of the stadium and the wooded scenery.

MIAMI UNIVERSITY - OGDEN HALL DINING ADDITION, Oxford, OH

Renovation and addition to the lower level of the George C. Ogden Hall located at Miami University. The existing 13,500 square foot-dining hall is being renovated and 12,000 square feet is being added to accommodate the diversified meal patrons and the expanding number of customers. A stairwell is being relocated in the cafeteria to allow expansion for seating along with the addition of a 1,500 square foot formal dining room. The food court area is being remodeled and expanded to include skylights and a revamped To-Go window for those eating on the run. There will also be a 3,500 square foot terrace added to the rear of the hall adjacent to the To-Go window. The kitchen will have a new layout with a new refrigerator, freezer, and dry food storage area added. A new 2,600 square foot screened in dock area is being added along side the kitchen/storage areas for ease of access.

LEE COLLEGE CLASSROOM AND COMMUNITY AREA BUILDING, Cleveland, TN Structural design of a new two-story 25,000 square foot classroom building built in seismic zone 2. The second floor uses 12" pre-cast concrete planks. Wood truss roof bearing on masonry walls was designed and therefore required special detailing and consideration to insure masonry walls had required ductility.

HINKLE HALL RENOVATIONS - XAVIER UNIVERSITY, Cincinnati, OH

Renovation of an existing 22,500 square foot three story office. The building was originally constructed as a dormitory and had been previously renovated into offices. The building is currently being renovated to provide better utilization of space for the changing usage by the university. New utility tunnels, basement access, elevator, and skylights will be added.

## UNIVERSITY OF CINCINNATI ALUMNI CENTER, Cincinnati, OH

Provided structural engineering for:

-Phase I: 13,000 square foot, one story masonry structure with steel framing on a drilled pier foundation. Building included large reception area, meeting room and dining area.

-Phase II: 6,000 square foot, two story masonry addition. It functions as the alumni association's administrative office and includes a lounge, board room, meeting room and computer room.

## VILLA MADONNA ACADEMY AUDITORIUM RENOVATION, VIIIa Hills, KY

This project, currently in the design phase, consists of the conversion of an existing 7,000 square foot gymnasium building into two levels. A new structural floor is being designed over about half of the area to accommodate a music room, laboratories and offices. An auditorium will encompass the remaining area, which will have a sloped floor, and seating for 280.

## OAK HILLS HIGH SCHOOL ADDITION, Cincinnati, OH

Structural design of a one story 33,000 square foot gymnasium and locker room with a 10,000 square foot mezzanine at the perimeter, a 2 story 33,250 square foot classroom/ media center and a two story 17,000 square foot commons area, music room, mechanical and storage area, and a pedestrian bridge between the gymnasium mezzanine and commons area.

## CINCINNATI HILLS CHRISTIAN ACADEMY, PHASE 2, Cincinnati, OH

Structural design of a 54,000 square foot addition to an existing two-story school. The addition consists of three areas. The first is a two-story classroom building with similar construction to the original structure. This area also includes a cafeteria with 45' clear spanning steel beams framing to CMU walls. The second area is an auditorium. The auditorium has two 85' clear span trusses, which in turn support steel joist girders and joists over the entire auditorium. At the entry there is a 35' clear height, octagon shaped space with Glu-lam roof members supported by a perimeter tension ring. Over the stage is a steel "fly-grid" which supports up to 13 line segments. Each is counter balanced by weights hanging against the east wall. The third area is a gymnasium with a 100' x 111' clear area. The roof over this area is steel joists and joist girders.

## CINCINNATI HILLS CHRISTIAN ACADEMY, Cincinnati, OH

Structural design of a 24,000 square foot, two story building with a wood truss roof, precast concrete plank floors, and load bearing masonry walls bearing on spread footings. Two building wings (55' x 55' octagonally shaped) have heavy timber framed, vaulted roofs making use of masonry bond beams as an eave tension tie. One of these spaces has a 40' x 40' octagonally shaped floor opening, which leaves a 6' balcony at the perimeter. Wood roof trusses have a flat center span with a mansard at the eaves. The building is detailed to accommodate a future addition on two sides.

## ST. JAMES SCHOOL ADDITION/PARISH CENTER, Cincinnati, OH

The project consists of a new activity center and a classroom addition. The new activity center is 20,500 square foot with a partial basement. The center is comprised of a 9,400 square foot gymnasium/auditorium with a stage, senior citizens room and parish administration offices.

A three-story 11,000 square foot classroom addition was also designed. This is a steel-framed addition with masonry bearing walls. Six classrooms, three meeting rooms and an elevator are included in the addition.

## MARSHALL UNIVERSITY ROBERT C. BYRD BIOTECHNOLOGY SCIENCE CENTER

- Huntington, WV



Steven Schaefer Associates provided the structural design for this facility that includes 144,000 sq ft of laboratory space, offices for faculty and staff, two auditoria, animal holding rooms, and support services. HVAC equipment is housed on a penthouse level and on an interstitial floor between the first and second

floors. The building is framed with composite steel beams, girders and steel columns. Braced frames and moment frames resist all lateral loads. A deep foundation system consisting of reinforced concrete drilled shafts is utilized. A 200 ft long pedestrian bridge connects the building to the existing science building across the street.

## MARSHALL UNIVERSITY STUDENT HOUSING - Huntington, WV



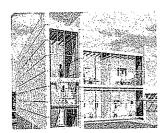
Steven Schaefer Associates provided the structural design for this student housing and dining complex containing housing for 500 students and dining facilities for 300. Student housing is provided in four, four-story residence halls enclosing approximately 160,000 sq ft. The residence halls are framed with precast concrete floor plank bearing on concrete

masonry walls. The roof of the dining facility is framed with steel joints and beams bearing on concrete masonry walls and steel columns. Mechanical, electrical and plumbing systems are contained in a basement mechanical room and in a deep rooftop well above the dining facility.

## MARSHALL UNIVERSITY FORENSIC SCIENCE CENTER -

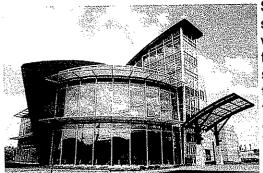
Huntington, WV

We provided the structural design for this two-story 8,000 sq ft addition to the existing one-story masonry Forensic Science Center. The structure is a steel frame enclosed with precast concrete wall panels, glass, and aluminum curtainwall. The foundation system consists of shallow spread footings.



MARSHALL CLINICAL OUTREACH & EDUCATION CENTER – Huntington, WV The CEOC provides Marshall University with an additional 80,000 sq ft of space. This four-story building and adjacent parking structure will expand the teaching space and services currently offered by the School of Medicine. The floors and roof of the building are framed with steel beams and girders with a composite concrete slab. Lateral stability for the building frame is provided by moment-resisting steel frames and by reinforced concrete shafts at the stairs and elevators. The adjacent one-level parking deck is a cast-in-place, post-tensioned concrete structure.

# KING'S DAUGHTERS MEDICAL CENTER OUTPATIENT IMAGING CENTER – Ashland, KY

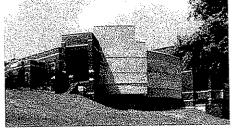


Steven Schaefer Associates provided the structural engineering for this \$7 million facility whose futuristic design illustrates the space-age technology available inside. The center is a two-story, 20,000 sq ft building with a steel frame that is designed to accommodate an additional three floors. A composite steel beam and concrete slab system frame the elevated floors. The curved accent wall is a steel tube frame infilled with cold-formed metal framing. Aluminum sun screens on the west-facing wall

and lobby wall are attached to a continuous steel tube on the edge of the elevated slabs. Lateral loads are resisted by reinforced concrete shear walls at the stairs and elevators, and by steel strut braces. Poor soil conditions and large column loads necessitated the use of an augercast pile foundation system.

## EDWIN A. MALLOY EDUCATION BUILDING — Cincinnati, OH

The Jewish Foundation of Cincinnati International Learning Center is a new facility with two integrated components: a lecture hall, and a graduate seminar room. The lecture hall is a classroom with seating for up to 100. The classroom is equipped to handle satellite transmission and receiving capabilities,



enhanced interactive video projection and sound systems, a large video monitor, telephone, fax line, and high-speed internet access. The exterior of the building is stone veneer, curved and cantilevered from the floor structure. At the back of the building is an office suite deck with cantilevered sun screens.

# XAVIER UNIVERSITY SCIENCE CENTER / CARL H. LINDNER PHYSICS BUILDING, ALBERS HALL AND LOGAN HALL — Cincinnati, OH

Steven Schaefer Associates provided the structural engineering for the \$8.8 million Carl H. Lindner Family Physics Building and the renovation of Albers Hall and Logan Hall biology and chemistry buildings. The three-story, 24,000 sq ft physics building utilized a composite concrete structural steel framing system for economy and ease of future modifications. The renovated buildings were four-story concrete frames with improvements that included: a new basement level connector, new elevator, new stairway for handicap access and code exit requirements, an animal care and research facility, and a movable motorized roof skylight for a top story observatory.

## MONTGOMERY ELEMENTARY SCHOOL - Montgomery, OH



This elementary school consists of two- and three-story classroom pods totaling 54,400 sq ft, a 9,800 sq ft gymnasium/cafeteria, and a 4,500 sq ft media center. Exposed specialty roof trusses were designed with web members forming a monogram "M' over the gymnasium/cafeteria. Center of the building contains a monumental staircase cantilevered from a single center column.

### CHEVIOT ELEMENTARY ADDITION / RENOVATION - Cincinnati, OH

This Cincinnati Public School (CPS) and Ohio Schools Facility Commission (OSFC) project includes renovation of the original classroom building built in 1924 and the design of a new 58,000 sq ft school addition that includes a cafeteria, gymnasium and an L-shaped, two-story classroom wing. Steel bar joists are used for both the elevated structural floor system and flat roofs, while pre-engineered light gage metal trusses are used for the gabled roof elements. The unique skews, sloping site and large open foyers provided challenging opportunities for the structural detailing.

### EVENDALE ELEMENTARY - Evendale, OH



This \$10 million single-story 54,000 sq ft elementary school has a main structural system of reinforced load bearing masonry walls for durability and insulating value. These walls support light gage metal roof trusses and rest on shallow spread footings. The gym and cafetorium areas have specially designed hot rolled steel roof trusses to accommodate large spans and open areas. Photo compliments of Evendale Elementary.

#### MADEIRA ELEMENTARY SCHOOL - Madeira, OH

This \$9.3 million 70,000 sq ft elementary school consists of a 20,600 sq ft per floor, two-story classroom wing, and a single-story structure housing administration, specials classrooms, media center, cafetorium, and a 5,000 sq ft gymnasium. The main entry contains a limestone arch entry into a courtyard.

### MADEIRA MIDDLE SCHOOL - Madeira, OH



The \$9 million 74,000 sq ft middle school building consists of a 23,100 sq ft per floor, two-story classroom wing with media center and administration offices. A single-story structure houses specials classrooms, cafetorium, and a 7,500 sq ft gymnasium. The main entry features limestone arches and a circular window.

#### MADEIRA HIGH SCHOOL - Madeira, OH

This \$5 million single-story 12,600 sq ft high school addition contains classrooms, administration, and a new main entry. The new main entry features full height curtain wall and a cantilevered canopy. Renovation of the existing high school building consisted of structural support for new mechanical systems, and misc. modifications to existing walls and structure.

## SCHOOL FOR THE CREATIVE AND PERFORMING ARTS - Cincinnati, OH



The new School for the Creative and Performing Arts (SCPA) will serve 1,350 students in a four-story 280,000 sq ft facility, providing students the opportunity to major in dance, drama, music, theater, visual arts or writing. The school features state-of-the-art teaching space and three theatres - a 750seat full production theatre, a 300-seat recital hall, and a 120seat studio.

WITHROW HIGH SCHOOL ADDITION / RENOVATION - Cincinnati, OH

Steven Schaefer Associates provided structural design for the construction of a twostory 35,000 sq ft athletic building, renovation of 250,000 sq ft of existing buildings, and demolition of four buildings. The new athletic facility includes a gymnasium, locker rooms, weight room, offices, and concession stand. The entry to the athletic building is curved with an exterior colonnade and a new pedestrian access connecting it to an existing building. The building has a second floor/mezzanine with bleachers that overlook the gymnasium. The old pool/gymnasium building was renovated to include a new larger cafeteria/kitchen and a central utility plant for the school's campus. A new two-story pedestrian access structure was designed to connect the old pool/gymnasium building to the original U-shaped campus building.

## FELICITY-FRANKLIN HIGH SCHOOL - Felicity, OH



This new 75,000 sq ft high school includes a 26,000 sq ft two-story classroom, a 4,500 sq ft auditoria and an 8,500 sq ft gymnasium. Construction is reinforced load bearing masonry for its economics and durability. The second floor construction was analyzed for vibration considerations and led to the design of a four inch concrete slab supported by steel bar joists at four feet on center.

## ST. URSULA CLASSROOM BUILDING - Cincinnati, OH

This four-story 30,000 sq ft academic facility includes classrooms, science labs for biology, chemistry and physics, rehearsal room for orchestra and choral groups, and a maintenance facility. This campus addition surrounds the existing boiler/maintenance building and is attached to existing classrooms though a one-story canopy and underground tunnel. Portions of the boiler facility were transferred into the addition and a new maintenance garage utilized precast concrete planks and was designed for a future greenhouse on the roof. The design allowed for future development to the school as the need arose.

### GREENEVIEW HIGH SCHOOL - Jamestown, OH



This new 90,900 sq ft 550-student high school includes classrooms, library and gymnasium, and a multipurpose auditorium/cafeteria. Lateral loads were resisted by constructing moment frames from the window jambs and heads. The result was a reduction in materials needed to meet the strict codes required for a school and classrooms that are able to receive plenty of natural light.

### WINTON CENTRE ADDITION - Cincinnati, OH

This project includes demolition of an inefficient portion of the existing building and construction a 3,500 sq ft expansion. The new facility includes a dispatch area, a vehicle sally port and temporary holding facility, evidence processing and property storage areas, and additional personnel spaces. Foundation is cast-in-place reinforced slab-on-grade with CMU exterior walls.

#### CINCINNATI FIRE STATION # 9 - Cincinnati, OH

This 15,500 sq ft two-story fire station has extensive curves in both plan and elevation, especially evident in the curved roof of the three apparatus bays. The apparatus bay bowstring roof joists are supported by a main steel truss. The second floor is concrete slab on bar joists with a small section of permanent and removable bar grating for training. There are also swivel hoist rings on the second floor for training purposes. Within the fire station there are offices, living and support areas along with an elevated patio area. This was the city's first LEED registered project requiring a minimal percentage of recycled steel and construction waste management.

#### BLUE ASH FIRE STATION - Blue Ash, OH

This 36,000 sq ft fire station includes an apparatus bay with five bays, five-level hose tower, training, dorm and living areas, offices, large meeting room, equipment storage, fitness area, emergency operations center, training and storage mezzanine and confined space training on two levels. The fire department holds a variety of training exercises in the tower, on the roofs and mezzanine and in the confined space areas.