

PROPOSAL FOR

AEOI 0490 WSC240000004

A&E SERVICES – WVSU HVAC RENOVATION PROJECTS

PREPARED FOR

WEST VIRGINIA STATE UNIVERSITY

John M. Weiland, P.E., CEM, LEED AP
Principal
814-269-9300
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H.F. Lenz Co.
1407 Scalp Avenue
Johnstown, PA 15904
Phone: 814.269.9300
FAX: 814.269.9301

HFL File No. 2024-1307.00

March 26, 2024

H.F. LENZ

ENGINEERING

H.F. Lenz Co. | 1407 Scalp Avenue | Johnstown, PA | 15904 | 814-269-9300

March 26, 2024

Mr. Jerry D Rush
Director of Purchasing
West Virginia State University
5000 Fairlawn Avenue
Ferrell Hall Rm 301
Institute, WV 25112

Subject: Proposal for A&E Services - WVSU HVAC Renovation Projects
HFL Project Number: 2024-1307.00

Dear Mr. Rush:

H.F. Lenz Company is enthusiastic about the opportunity to provide West Virginia State University (WVSU) with Engineering Services for HVAC renovations to multiple buildings on campus. Our high-quality engineering designs combined with our attentive customer service make us ideally suited for this contract. In summary, our team offers the following strengths and benefits to WVSU:

- Extensive experience with MEP Engineering Services for higher education facilities.
- Proven ability and capacity to successfully respond to the demands of contract.
- Senior-Level Personnel. Our team consists of senior-level staff who will remain involved with individual projects throughout their duration.
- Our designated Relationship Manager for this contract, John M. Weiland, P.E. CEM, LEED AP, has been actively involved with MEP projects throughout the state of West Virginia for fifteen years.
- Support services such as civil and structural engineering can be provided with in-house resources; architectural services can be provided by a subconsultant.
 - Omni Associates will be our subconsultant for this project and are a West Virginia based architectural firm and we have worked together for over 20 years.

With our office located less than four hours driving time from WVSU, we can respond expeditiously to on-site requests.

State-of-the art analytical and design tools for detailed and highly accurate data that can be quickly incorporated into reports, drawings and other deliverables.

Firm Stability. This is our 78th year in business. We have one of the lowest rates of employee turnover in our industry.

Thank you for the opportunity to submit our proposal for this important contract. We look forward to the next steps in the selection process, including a possible oral presentation. In the meantime, we will be happy to answer any questions you may have regarding our proposal.

Thank you for the opportunity to submit our proposal for this important contract.

CO.



CEM, LEED AP

SIGNATURE/CERTIFICATION

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

John M. Weiland - Principal
(Name, Title)
John M. Weiland, P.E. CEM, LEED AP - Principal

(Printed Name and Title)
1407 Scalpe Avenue, Johnstown, PA 15904

(Address)
814-269-9300 / 814-269-9301

(Phone Number) / (Fax Number)
jweiland@hflenz.com
(email address)

CERTIFICATION AND SIGNATURE: By signing below, or submitting documentation through e-mail, I certify that: I have reviewed this solicitation in its entirety; that I understand the requirements, terms and conditions, and other information contained herein; that this bid, offer or proposal constitutes an offer to the Commission/Institution that cannot be unilaterally withdrawn; that the product or service proposed meets the mandatory requirements contained in the solicitation for that product or service, unless otherwise stated herein; that the vendor accepts the terms and conditions contained in the solicitation, unless otherwise stated herein; that I am submitting this bid, offer or proposal for review and consideration; that I am authorized by the vendor to execute and submit this bid, offer, or proposal, or any documents related thereto on vendor's behalf; that I am authorized to bind the vendor in a contractual relationship; and that to the best of my knowledge, the vendor has properly registered with any State agency that may require registration.

By signing below, I further certify that I understand the Commission/Institution is requiring the vendor to follow the provisions of WV State Code 5A-3-62 which automatically voids certain contract clauses that violate State law.

H.F. Lenz Co.
(Company)

John M. Weiland - Principal
(Authorized Signature) (Representative Name, Title)

John M. Weiland, P.E. CEM, LEED AP - Principal
(Printed Name and Title of Authorized Representative)

March 22, 2024
(Date)

814-269-9300 / 814-269-9301
(Phone Number) (Fax Number)

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TAB 1: FIRM PROFILE





H.F. Lenz Company

H.F. Lenz Company was established 1946 in its present form and in 1953 the company was incorporated, as a Private Corporation, in Pennsylvania as H.F. Lenz Co. Our projects span the nation, with the heaviest concentration in the Northeast, and exceed \$1.5 billion in construction annually. Each market sector—corporate, government, health care, education, and industry—is served by a team of specialists who understand the unique needs of the clients they serve. Our staff consists of 180+ individuals, including 40 Licensed Professional Engineers and 15 LEED Accredited Professionals. Our headquarters is in Johnstown, Pennsylvania with branch offices in Pittsburgh and Lancaster, Pennsylvania; Conneaut, Ohio; and Middletown, Connecticut.

Johnstown Headquarters

1407 Scalp Avenue
Johnstown, PA 15904
Phone: 814-269-9300
Fax: 814-269-9301
www.hflenz.com

Pittsburgh Office

100 Brinton Road
Pittsburgh, PA 15221
Phone: 412-371-9073

Lancaster Office

1000 Pointe Boulevard

Lancaster, PA 17601
Phone: 717-461-3916

1000 Street
Lancaster, PA 174030
Phone: 717-599-7800
Fax: 717-7801

Middletown Office

1000 Point Drive

Middletown, CT 06457
Phone: 860-2124

Disciplines/services offered in-house include:

- Mechanical Engineering
- Electrical Engineering
- Data/Communications Engineering
- Fire Protection / Life Safety Engineering
- Structural Engineering
- Civil Engineering
- Surveying
- GIS
- Construction Phase Services
- Commissioning and Training
- 3D CADD with Full Visualization
- Energy Modeling
- Sustainable design/LEED Services
- Building Information Modeling (BIM)

Philosophy

Two essential prerequisites lay the foundation for every H.F. Lenz Co. project. First, we take the time to understand the client's business and how it operates. Second, we proactively involve the client in the development of appropriate solutions. In our role as partner, we help the client understand how well the available alternatives satisfy the project's own unique, prioritized set of objectives.

LEED®

Our firm has been a member of the U.S. Green Building Council since 2000 and we currently have 15 LEED® Accredited Professionals on staff. Our experience includes 120+ projects that have attained various levels of LEED Certification and numerous additional projects designed for various levels of LEED Certification, in total over 16 million SF of facilities.

West Virginia Colleges and Universities

Our higher education experience includes several colleges and universities throughout the state of West Virginia, including over 25 years of experience at WVU and current/recent projects for Fairmont State University, West Virginia Northern Community College, Pierpont Community and Technical College and Shepherd University.



H.F. LENZ

Mechanical/Electrical Evaluations

The H.F. Lenz Company has been designing mechanical and electrical systems for all types of buildings for over 78 years. During this time, we have become extremely knowledgeable of almost every type of mechanical and electrical system that can be found in commercial and institutional buildings. It is this direct experience that has allowed our engineers to become experts in building evaluations. Almost all renovation projects undertaken by the H.F. Lenz Company begin with a study or evaluation of present conditions. Only after this task is completed can a clear direction be defined for corrective action or new design. Our multi-discipline staff is highly experienced in conducting in-depth studies in a variety of engineering disciplines including HVAC, electrical, plumbing, fire protection/life safety, civil, and structural. We have performed these studies for both private-sector and governmental clients. Projects range from individual rooms to one million SF high-rise office buildings.

In a typical evaluation, our engineers thoroughly assess the condition and operating performance of heating systems, ventilating systems, air conditioning systems, automatic temperature controls, and plumbing systems. Also evaluated are electrical power distribution, lighting systems, emergency power systems, fire protection systems, fire alarm, security systems, and telecommunication systems. Close attention is given to code compliance and energy conservation efficiency.

Based upon the findings of the building survey, H.F. Lenz Company will evaluate the condition of the systems and the feasibility for reuse or reconfiguration for the renovated building. Our engineers will categorize the condition of the existing systems into three areas for action:

- Emergency
- Short-Term
- Long-Term

Emergency action items involve addressing systems, or system components, that pose a great threat to the safe operation of the systems and/or building, or are in immediate danger for failure.

Short-term action items include repairs or upgrades that should be incorporated within 1 to 5 years.

Long-term actions include system repairs or upgrades that are not imminent and don't need to be accomplished for 5 years or longer.

Cycle Cost Analysis

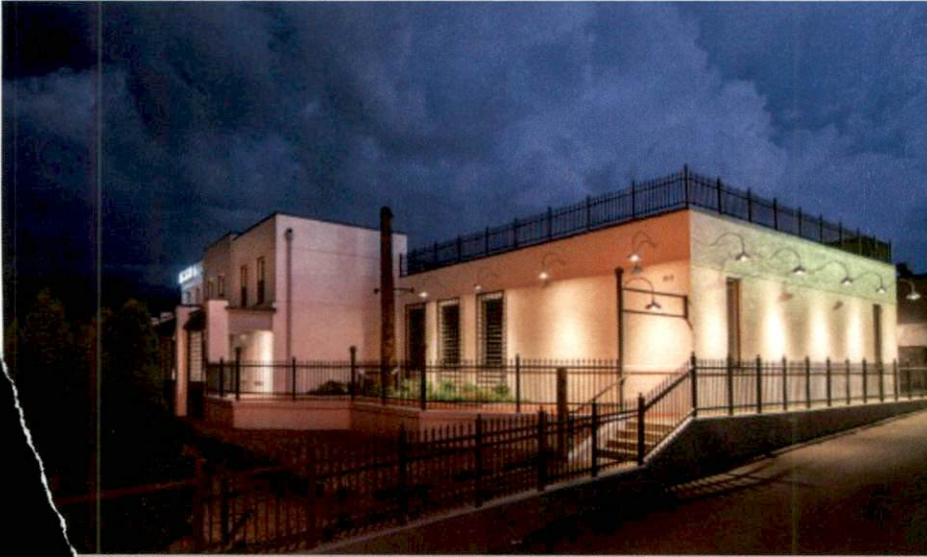
Life cycle engineering and life cycle costing are key components of the Design Team cost control program. These tools allow evaluation of design options using engineering economic analysis. The benefit to the client is a facility that has equal or more utility at reduced cost.

Final Report

The final report is delivered to the owner in an easy to understand format that outlines short-term and long-term improvements or modifications required to provide for both current and future needs. An implementation strategy is also included as well as associated cost estimates for each recommended project. For large or complex projects several alternate strategies are usually developed with the pros and cons of each evaluated in the report.

FIRM PROFILE/CORPORATE INFORMATION

OMNI ASSOCIATES - ARCHITECTS is an award-winning architectural firm located in Fairmont, West Virginia. Our approach to design has allowed us to avoid the confines of specialization and afforded us the opportunity to create a diverse body of work.



CORPORATE OFFICE

207 Jefferson Street
Fairmont, WV 26554

PRINCIPAL OWNERSHIP

Richard T. Forren, AIA
Adam L. Rohaly, AIA
John I. Rogers, III
David E. Snider, AIA
David A. Stephenson

CONTACT

Phone: (304) 367-1417

(855) 367-1417

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Email: info@omniassociates.com

From the beginning in 1980, Omni has earned recognition for the programming, design and design of a variety of structures; which includes corporate office buildings, governmental buildings, health care facilities and medical campuses, educational buildings, recreational, religious, military and other facilities.

Our attention and superior work product are the result of efficient and effective communication with our clients and consultants. Each project is a unique process that begins with analyzing the needs and desires of the client, and translating them into a distinctive design that exceeds expectations.

Our successful history of designing intimately with each client and providing collaborative solutions that meet the project goals, resulting in an excellent record of customer satisfaction. These are qualities that draw our clients back, resulting in lasting relationships.

Omni Associates provides clients with the results they value most: Innovative designs consistent with the building program, cost effective designs which meet the budget, and efficient project management to provide on-time deliverables.

We're proud of our reputation and expertise, and our clients are confident that they will receive superior services.

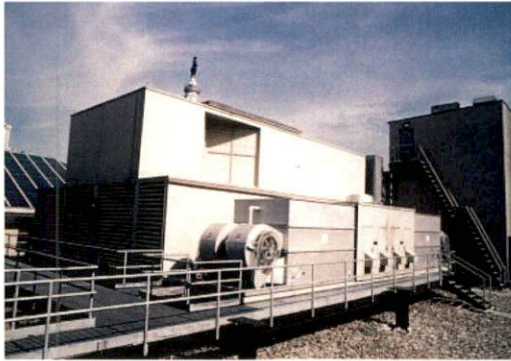


TAB 2: PROJECT EXPERIENCE

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WEST VIRGINIA UNIVERSITY

Multiple HVAC Project Upgrades

Morgantown, WV

Services

Mechanical, Electrical,
Plumbing, Fire Protection,
Commissioning, Civil,
Structural

Completed

Various Dates

Cost

Varies

Reference

Zenaba Qadeer
Construction Manager
West Virginia University
PH: 304-276-7364
Zenaba.qadeer@mail.wvu.edu

H.F. Lenz Company has provided multi-discipline engineering services for West Virginia University for over 25 years and has held seven term contracts, which have included AHU System upgrades, HVAC System Replacements, and other various facility upgrades.

A few of our projects have included:

- Towers Dormitories: Four-building high-rise complex housing 1900 students located on the WVU Evansdale Campus. Three 5,000 cfm AHUs
- Woodburn Hall: Four-story historic building built in 1874 located at the WVU Downtown Campus. Two 11,000 cfm AHUs
- Creative Arts Center: Home of the College of Creative Arts, this building was built in 1969 and contains 50 classrooms, numerous studios, and a 1,400-seat concert theater. Six AHUs
- Charles Wise Library: Replacement of seven AHUs and addition of two new central stations as part of 124,000 SF addition and 86,000 SF renovation
- Chemistry Research Laboratory: Five-story building located at the WVU Downtown Campus. Two 40,000 cfm AHUs
- Mountainlair AHU 5 replacement
- Clark Hall AHU 15 sequencing
- Armstrong Hall AHU 1 and 2 replacement
- Chitwood Hall AHU replacements
- Lyons Tower AHU J and Q replacement
- Brooke Tower AHU 7 replacement
- Student Recreation Center Steam Line Relocation
- Wise Library Special Collections HVAC Evaluations
- Chilled Water Line Extension to Admissions & Records Building, Eiesland Hall
- Pettito Building Structural Condition Assessment
- Evansdale Cooling Tower Replacement
- Communications Building Print Shop HVAC Evaluation
- Communications Building HVAC Retrofit
- Chemistry Building Lab Exhaust Upgrades and AHU Replacement
- Fieldcrest Roof Top Unit Air Handler Replacement
- Demolition of Beechurst Boiler Plant
- Conversion of Former Medical Center Boiler Plant for Use by the University's Grounds Department
- Potomac State College's Church-McKee Arts Center Chiller Replacement
- Commissioning Services for White Hall Chiller Plant

WEST VIRGINIA UNIVERSITY

Multiple HVAC Project Upgrades



Eiesland Hall HVAC Renovation

Built in 1954, Eiesland Hall is a 60,000 SF general purpose classroom building located on the Downtown Campus of West Virginia University. For this project, H.F. Lenz Company provided Mechanical, Electrical, and Plumbing/Fire Protection engineering services to renovate the third and fourth floors into classrooms.

The scope of work included the following:

- Extended chilled water from campus central chiller plant to the building to shift load from less efficient building chillers to more efficient central chilled water plant. New controls were installed to measure building chilled water flow and regulate campus flow to help maintain building delta T
- Replaced two constant volume, multi-zone air handlers with a single new variable volume air handling unit and converted air distribution system to variable air volume. New DDC Air Handler controls were incorporated to control scheduling and discharge air temperature and airflow control.
- Designed a new hot water system (produced by campus steam) to serve VAV box reheats and perimeter heating. Control system designed to maintain hot water system temperature and variable speed pump flow setpoints.
- Renovated third and fourth floors to provide three 30-seat classrooms and one 20-seat classrooms on each floor.



Engineering Sciences Building Renovation

H.F. Lenz Company provided mechanical, electrical, plumbing, and fire protection engineering services for the renovations to the basement level of the Engineering Sciences Building. The renovated area consists of approximately 24,000 SF, and houses mixed offices, wet and dry laboratories, classrooms and graduate study spaces.

The project involved removing the existing mechanical system and replacing with a new system capable of providing the heating, ventilation and air conditioning requirements of the spaces. A variable flow refrigerant cooling system is being utilized for five of the laboratories with intensive cooling loads. As a result of the mechanical renovations, the project also includes the removal & replacement of ceilings, light fixtures and other systems affected, along with general aesthetic upgrades.

Construction was phased to allow partial occupancy of the building.

WEST VIRGINIA UNIVERSITY

Multiple HVAC Project Upgrades

Arnold Hall Boiler System Replacement

This boiler system replacement project included three new natural gas-fired low pressure steam boilers with a steam capacity of 2,760 pounds per hour each. Also included was a boiler feedwater package unit, blowdown separator, chemical feeders, water softening equipment, condensate pump units, steam piping and a boiler room combustion air intake and ventilation system.

The design of the new boiler system had to adhere to the following:

- Size the boiler system for redundancy equal to a minimum of (N+1)
- Size the required piping, condensate receivers, de-aerator, chemical treatment, pumps, and associated equipment. Include modifications to PRVs to accommodate new low pressure steam generation
- Ensure the new boiler room is of adequate size and determine what additional modifications are needed to satisfy all operational, safety, and code requirements, including new walls, doors, pads, exits, and access details
- Incorporate demo/abandonment of 3 existing manholes
- Life safety additions to the building

Stansbury Hall Retrofit

H.F. Lenz Company provided mechanical and electrical design services for the retrofit of Stansbury Hall at West Virginia University. The approximately 80,000 SF building houses a gymnasium, offices, and classrooms. Its existing HVAC system consists of fan coil units and one rooftop unit.

The new system was designed to utilize an existing 8-ft. high space above an existing ceiling to create a new mechanical equipment area. The design incorporated five new air handling units—two to provide ventilation air to the gymnasium and its adjacent spaces; two to provide air conditioning and heating to the office areas; and one to provide ventilation air to supplement the fan coil units in the classroom wing.

Additionally, H.F. Lenz Company's plan included the installation of an air-cooled chiller and electric service with panels to feed all the new mechanical equipment.





POTOMAC STATE COLLEGE

Science Hall Renovation

Keyser, WV

Services

Mechanical, Electrical,
Plumbing and Fire
Protection

Completed

2015

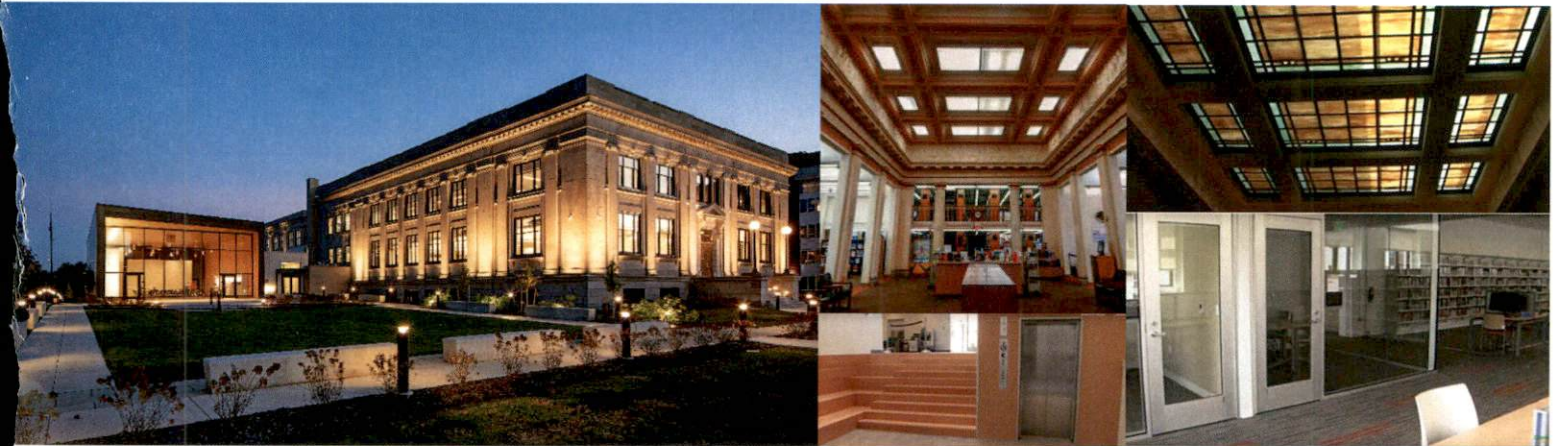
HVAC Upgrades

H.F. Lenz Company provided mechanical and electrical engineering services for upgrades to the existing HVAC system serving this 57,000 SF science and classroom building. The mechanical design consisted of new VAV boxes in classrooms and labs, demolition of bladders in the existing Moduline diffusers, replacement of VAV boxes serving labs, and installation of three-way ATC valves to provide better control to perimeter heat. The electrical portion of the project included demolition and new power to the replacement lab VAV boxes with electric reheat, and new control power to classroom and office supply dampers and ATC valves.

Elevator Upgrades

The elevator was original to the building and was in need of modernization to bring it up to current standards and codes. The project included the design of the following: Mechanical cooling (split system) for the elevator machine/control room; shaft ventilation upgrades; new power feeds for elevator motor and elevator controls; upgrades to fire/smoke detection and elevator safety systems as required to comply with current codes; upgrades to the machine room and shaft lighting and convenience receptacles; upgrades to the elevator pit sump pump drainage system; and upgrades to the sprinkler system to provide sprinkler heads where required by current codes.

Construction administration services were provided for both projects.



PUBLIC LIBRARY OF YOUNGSTOWN & MAHONING COUNTY

Library Renovation and Addition

Youngstown, OH

Services

Mechanical, Electrical,
Plumbing, Fire
Protection

Square Footage

6,000 Addition

Completed

2022

Cost:

\$27 million

Reference

Aimee Fifarek
Executive Director
Public Library of
Youngstown &
Mahoning County
305 Wick Avenue
Youngstown, OH 44503
303-744-8636

H.F. Lenz Co. provided the engineering services for the new HVAC system and electrical systems for renovations and addition to this historic Carnegie Library, built in 1910 and the 1994 Addition on the Lower, First, Second and Mezzanine levels, as well as a 6,000 SF new addition. The addition includes a new main entrance and public space to support large meetings and events. The library intends to maximize space for public collaboration and technology integration, and is committed to rearranging and right-sizing the collections to accommodate these goals. Proposed site work eliminates the vehicular entrance from Wick Ave, and re-purposes existing parking to accommodate a landscaped urban garden adjacent to the building and west of the proposed addition. New features include a 125-person meeting space; culinary literacy center, complete with 14 cooking stations; a family engagement area with activity spaces.

After conducting an existing conditions evaluation, H.F. Lenz Company recommended the following mechanical and electrical systems, which were based on the project objectives of flexibility and sustainability:

- A dedicated outdoor air system (DOAS) air handling unit to supply ventilation and makeup air for all occupied spaces in the original library building
- Two, 100-ton air-cooled liquid chillers with variable speed drive screw compressors and integrated free cooling
- Reconfigured chilled water system to operate in a variable primary pumping arrangement
- A new high efficiency hot water heating system
- A building-wide, direct digital, automatic temperature control system featuring wireless zone sensors (temperature and humidity)
- Building electrical systems upgrade
- New fire sprinkler system
- New addressable fire detection and alarm system
- New storm, sanitary waste & vent, domestic cold water, domestic hot water and natural gas piping systems
- Access control and intrusion detection systems



SAINT FRANCIS UNIVERSITY

Schwab Hall Renovation

Loretto, PA

Services

Mechanical, Electrical,
Plumbing and Fire
Protection

Square Footage

4,000 Addition
19,000 Renovation

Completed

2016

Cost

\$7.6 million

Reference

David H. Williams
Director of Physical
Plant
117 Eve-green Drive,
Loretto, PA 15940
814-472-3251
dwilliams@francis.edu

H.F. Lenz Company provided the mechanical, electrical, plumbing, and fire protection engineering services for the study and renovation of Schwab Hall. The historic building was originally constructed in 1930, with the work overseen by Charles M. Schwab, as the home for the University's science programs, but over the past 80 years it has housed many different academic disciplines. The newly renovated building is now home to the Shields School of Business. The 19,000 SF renovated existing building, and the approximately 4,000 SF addition, allows the university increased classroom capacity and provide a magnificent Multi-Purpose Room on the Third Floor that provides wonderful views of the campus. Features of the project include:

Limited space above the ceilings made distribution of the utilities difficult. To work through these challenges, variable air volume boxes were located in the corridors and existing vertical chases were made use of to distribute conditioned air from the new penthouse air-handling units. Radiant heating panels were used to satisfy the skin loads and to overcome the heat loss through the large window openings. The building has a completely new HVAC system, including new boilers and air-cooled chiller, totally replaced electrical system with LED lighting and automatic controls throughout, and all of the classrooms are set up for lecture capture (recording) technology.



COMMUNITY COLLEGE OF THE ALLEGHENY COUNTY

Campus HVAC Upgrades

Pittsburgh, PA

Services

Mechanical, Electrical,
Plumbing and Fire
Protection

Completed

2023 South Campus
2015 West Hall

Cost

\$855,000 South Campus
\$10.7 million West Hall

Reference

Brian Richards
Physical Plant Supervisor
Community College of
Allegheny County
800 Allegheny Avenue
Pittsburgh, PA 15233
412-237-2552
brichards@ccac.edu

South Campus Infrastructure Upgrades

H.F. Lenz Company provided the mechanical, electrical and plumbing services for the Community College of Allegheny County South Campus HVAC infrastructure upgrade to replace equipment that had exceed its useful life.

Features of the project include:

- Replacement of 8 vertical chilled water/hot water Unit ventilators
- Replacement of 4 ducted horizontal unit ventilators
- Replacement of 3 fan coil units
- Replacement of 4 air handling units including MERV 13 filters
- Replaced isolation valves throughout/Added valves to allow for easier maintenance.
- Electrical circuiting was replaced
- Fire alarm modifications
- Project Bid (September 2023) \$855,000 with next lowest bid within 0.4%

West Hall Renovation

H.F. Lenz Company provided the mechanical, plumbing and fire protection engineering services for the full renovation to the historic West Hall that was Built in 1912. The exterior of the building is considered a historic landmark and renovations had to be coordinated with and approved by local historical authorities. The renovated structure now houses instructional space for the Art, Music and Speech/Language programs.

The interior spaces of the building were completely gutted and renovated. Due to the historic nature of the façade, exceptional care was taken while designing this project to minimize exterior noise and to conceal any equipment that was installed on the exterior of the building. New HVAC systems were installed. Low floor-to-floor heights made routing of piping and cwork a challenge, but modeling the systems using BIM allowed the systems to be "test-fit" prior to the actual installation.

HVAC REPLACEMENT

Project List



Typically provides project management and coordination services for HVAC Replacement projects. In some cases, architectural design services are needed if new ductwork is installed and ceilings need to be raised or chases and bulkheads are added to the interior of the building.

Over the course of our firm's history, we have completed the following HVAC Replacement Projects:

Walter Reed National Military Medical Center

Community

Printing

Building 143

Building 152

Building 156

- General Center
- Fairmont Regional Medical Center

Fairmont State University

- RCB NAEC Aerospace
- RCB NAEC Hanger
- RCB NAEC RTU
- RCB NAEC Addition
- FSU Feaster Center

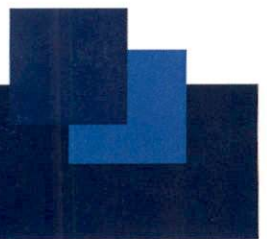
Mylan Pharmaceuticals

- Mylan Archive Room
- Mylan Shipping Dock
- Mylan Park Lab

State of West Virginia

- Building 84
- Building 5
- Building 88
- Buckhannon AFRC
- Morgantown High School
- Covenant Church Renovation
- WVU Lyons Hall

TAB 3: PROJECT TEAM QUALIFICATIONS





John M. Weiland, P.E., CEM, LEED AP
Principal-in-Charge of MEP Engineering

Mr. Weiland specializes in the multi-discipline planning and design of various types of projects for colleges and universities, governmental facilities, and healthcare facilities. His responsibilities include client contact, project scheduling, preparation of reports and cost estimates, coordination and supervision of project design teams and other project management functions. His duties include design calculations, equipment selection, schematic and construction document preparation, specification writing, and life cycle cost analyses.

Project Experience

Education

Bachelor of Architectural
Engineering, 2002, Pennsylvania
State University

Experience

H.F. Lenz Company 2002-Present

**Professional Registration /
Certification**

Licensed Professional Engineer in PA,
CT, MD, MI, NY, OH, and WV

Certified Energy Manager

LEED Accredited Professional

Professional Affiliations

ASHRAE – Johnstown, PA Chapter

Potomac State College, Keyser, WV

- Lough Gym air conditioning design
- Friend and Reynolds Hall chiller replacement
- Library Study Rooms HVAC
- Academy Hall piping
- Science Hall HVAC and elevator upgrade

West Virginia University, Morgantown, WV

- Over 120 projects
- Eiesland Hall HVAC renovation
- White Hall HVAC & Life Safety renovation
- Agriculture Science Building addition HVAC
- Creative Arts Center AHU replacements
- Stansbury Hall HVAC renovation including 5 new AHUs
- Engineering Sciences Building renovation
- Arnold Hall and Knapp Hall boiler replacements
- Downtown Chiller Plant expansion
- Mountainlair AHU 5 replacement
- Clark Hall AHU 15 sequencing
- Armstrong Hall AHU 1 and 2 replacement
- Chitwood Hall AHU replacements
- Lyons Tower AHU J and Q replacement
- Towers Dormitory Cafeteria AHU replacement

University of Pittsburgh, Pittsburgh, PA

- Phased renovation of 400,000 SF Benedum Hall; including the replacement of mechanical, electrical, plumbing and fire protection systems on all 15 floors - LEED Gold

Fairmont State University, Fairmont, WV

- Multi-phased project for renovations for the health sciences program

Shepherd University, Shepherdstown, WV

- HVAC modifications to improve pressure control in Scarborough Library



Education

Bachelor of Science, Mechanical Engineering Technology, 2012, University of Pittsburgh at Johnstown

Experience

H.F. Lenz Company 2012-Present

Professional Registration / Certification

Licensed Professional Engineer in PA

Certified Passive House Designer (CPHD)

Professional Affiliations

American Society of Heating, Refrigerating, and Air Conditioning Engineers (ASHRAE)

Lucas E. Shumaker, P.E., CPHD
Mechanical Engineer

Mr. Shumaker is a Mechanical Engineer at H.F. Lenz Company (HFL). He has 12 years of experience with HFL and has experience in the design of HVAC systems. His responsibilities have included design calculations, equipment selection, schematic and construction document design, specification writing, and life cycle cost analyses. His experience includes the design of mechanical systems for hospitals, educational facilities and office buildings.

Project Experience

West Virginia University, Morgantown, WV

- Redevelopment of the Reedsville Farm to enable the facility to offer distance education courses and an annual signature event
- Arnold Hall Boiler - three new natural gas-fired low pressure steam boilers with a steam capacity of 2,760 pounds per hour each
- Downtown Chiller Plant - Installation of a third and fourth 1,400- ton chiller with VFD, a free cooling heat exchanger system, fourth cooling tower, and associated electrical

Fairmont State University, Fairmont, WV

- Renovations for health services program - current project

West Virginia Northern Community College, New Martinsburg, WV

- Nursing School program renovations - current project

Saint Francis University, Loretto, PA

- Renovations to the 34,062 SF JFK Student Center

Mount Aloysius College, Cresson, PA

- Conversion/renovation of the former 20,000 SF gymnasium to a multipurpose student activity and conference center; The design and construction team used a speed-to-market approach of seven (7) months from project conception to substantial completion

Lebanon Valley College, Annville, PA

- Renovation and expansion to the 75,779 SF existing Mund Center including a dining hall, lobby, bookstore, conference rooms, theater, event space, and lounge areas

University of Pittsburgh at Bradford, Bradford, PA

- New 58,470 SF multi-story student housing facility with 203 beds and related amenities

Youngstown Public Library, Youngstown, OH

- Renovations to a historic community library



Education

Bachelor of Science, Mechanical Engineering, 2019, Liberty University

Experience

H.F. Lenz Company 2021-Present

Ductmate Industries Inc. 2019-2021

Jacob D. McMunn

Mechanical Designer

Mr. McMunn has over 5 years' experience in the design of mechanical and HVAC systems for various retrofits for higher education, commercial, and governmental facilities. Projects have included the design for equipment selection, schematic and construction document design, and specification writing.

Project Experience

West Virginia University, Morgantown, WV

- Evansdale Campus master planning
- Eiesland Hall first floor HVAC upgrades
- Allen Hall fourth floor HVAC Design
- Chitwood Hall renovation

University of Pittsburgh, Pittsburgh, PA

- Crawford Hall HVAC Design of new six-story spaces to include up-to-date flexible laboratories, including a vivarium to meet all current ABSL-2 standards, offices, and classrooms

Confidential Client, Various Locations

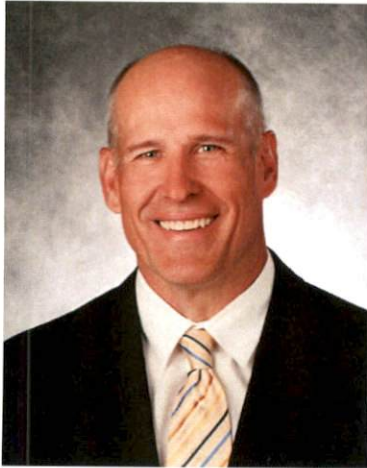
- New Early Childhood Learning Center

Lebanon Valley College, Annville, PA

- Renovation and expansion to the 75,779 SF existing Mund Center including a dining hall, lobby, bookstore, conference rooms, theater, event space, and lounge areas

SAIA LTL Freight, Tucson, AZ

- MEP design for forty new trucking terminals



Joel C. Shumaker, P.E., LEED AP
Electrical Engineer

Mr. Shumaker is responsible for client contact, project scheduling, preparation of reports and cost estimates, coordination and supervision of project design teams, and other project management functions. Mr. Shumaker is experienced in the design of electrical systems for both new buildings and building retrofits for educational, health care, commercial, government, industrial, residential, and utility-related facilities. He is experienced in the design of power distribution systems; emergency power systems and monitoring; uninterruptible power supplies; lighting and emergency lighting systems; fire alarm systems; nurse call; security; sound; and telephone systems.

Education

Bachelor of Science, Electrical Engineering Technology 1993, University of Pittsburgh at Johnstown

Experience

H.F. Lenz Company 1985-Present

Professional Registration / Certification

Licensed Professional Engineer in AZ, CT, DE, GA, ID, ME, MD, NH, NY, NJ, ND, RI, VT, VA, and WV

Professional Affiliations

Pennsylvania Society of Professional Engineers, Town Chapter Secretary

Society of Professional

Chapter of Association of Plant Administrators

National Society of Pharmaceutical Engineers (ISPE)

Project Experience

West Virginia University, Morgantown, WV

- Renovation of the 95,500 SF White Hall science building

Fairmont State University, Fairmont, WV

- Renovations for health services program, including four simulation labs, each depicting a different area of the hospital

West Virginia Northern Community College, New Martinsburg, Weirton and Wheeling, WV

- Nursing School program renovations at multiple locations

Schwab Hall, Saint Francis University, Loretto, PA

- Renovation of 19,000 SF Schwab Hall built in 1930; included a completely new HVAC system with new boilers and air-cooled chiller, and new electrical system

West Hall, Community College of Allegheny County, Pittsburgh, PA

- Renovation of this historic building built in 1912; the interior spaces of the building were completely gutted and renovated including new mechanical, electrical, and plumbing systems

Mansfield University of Pennsylvania, Mansfield, PA

- Design for new 3,000 MBH boilers for Decker Gym, Butler Center Music Building, and The Fieldhouse

Lock Haven University, Lock Haven, PA

- Replacement of chillers at Bentley Hall and Stevenson Library

Public Library of Youngstown & Mahoning County, Youngstown, OH

- New HVAC system and electrical systems for renovations and addition to this historic Carnegie Library, built in 1910



Education

Bachelor of Science, Electrical Engineering Technology, 1995, University of Pittsburgh at Johnstown

Experience

H.F. Lenz Company 2010-Present
Villi Electrical Group 2010-2009
Augusta Engineering 2009-2006
Perry County Electric 2006-1995

Frank T. Restly, E.I.T.

Electrical Designer

Mr. Restly is experienced in the design of electrical systems for both new buildings and building retrofits for higher education, commercial, and governmental facilities. He is experienced in the design of fire alarm systems, power distribution systems, control systems, lighting and emergency lighting systems.

His duties also include coordination with regulatory agencies, equipment selection, coordination with other disciplines, checking of construction documents for quality assurance.

Project Experience

Shippensburg University, Shippensburg, PA

- Replacement of the fiber optic telecommunications cabling throughout the campus to the main distribution frames within each building

University of Pittsburgh, Pittsburgh, PA

- New telecommunication backbone fiber, new MDF/IDF room racks, patch panels, and associated cabling and equipment in conjunction with the renovation of 400,000 SF Benedum Hall

State Correctional Institution, Benner Township, PA

- New prison including campus-wide phone/data distribution using multi-pair copper for phone and fiber for data

Saint Francis University, Loretto, PA

- JFK Student Center – Renovation of a 1965 building into a student center

Youngstown Public Library, Youngstown, OH

- Renovations to the historic Carnegie Library built in 1910; includes a new main entrance and public space to support large meetings and events

University of Pittsburgh at Johnstown, Johnstown, PA

- Engineering and Science Building renovations and addition

Yale University, New Haven, CT

- Renovation of the 52,000 SF Wright Nuclear Structure Laboratory

West Virginia University, Morgantown, WV

- Renovation of the 95,500 SF White Hall



Education

Associate in Architectural Design,
1989, Pennsylvania Technical
Institute

Experience

H.F. Lenz Company 1997 - Present
Dynamic Design Company 1996
Miller-Picking Corp. 1993 - 1995
Dupont-Belcan. 1991-1993
Commons Eastern. 1989-1991

Christopher A. Formica

Plumbing/Fire Protection System Designer

Mr. Formica has designed complete plumbing systems for hospitals, colleges, schools, office buildings, prisons, and laboratories. He is responsible for plumbing design, layout, specifications and calculations; selection and sizing of equipment; cost estimates; and site survey work. Mr. Formica coordinates the plumbing design with utility companies, with other trades, and with the Project Engineer and Project Architect; and is responsible for assembling complete and accurate plumbing bid documents which meet H.F. Lenz Company standards.

Project Experience

West Virginia University, Morgantown, WV

- New 54,000 SF Alumni Center with an upscale clubroom, a banquet hall, three conference rooms, a board room, offices, retail space and storage rooms
- Renovation of the 95,500 SF White Hall
- Arnold Hall Boiler replacement

Fairmont State University, Fairmont, WV

- Renovations for health services program

West Virginia Northern Community College, New Martinsburg, WV

- Nursing School program renovations

Lebanon Valley College, Annville, PA

- New 12,000 SF School of Nursing

St. Vincent College, Latrobe, PA

- Renovation of Nursing Suite in the Health Sciences Building; includes skills lab, simulations labs, control booth, and debriefing space
- Renovation and addition to the Sis and Herman Dupré Science Complex consisting of four buildings totaling approximately 130,000 SF LEED Gold

University of Pittsburgh at Johnstown, Johnstown, PA

- New 26,000 SF School of Nursing; houses the University's newly expanded Nursing Program and provides updated chemistry and biology teaching labs
- Engineering and Science Building Renovations

University of Pittsburgh, Pittsburgh, PA

- Replacement of the existing plumbing and fire protection systems on all 15 floors of Benedum Hall over three phases

St. Francis University, Loretto, PA

- Renovation of the historic Schwab Hall and new 3,700 SF addition



Alice M. Hogan, P.E.
Structural Engineer

Ms. Hogan is responsible for the design and analysis of steel, concrete, and masonry structures. She has served as lead structural engineer on various government, commercial, and industrial projects, and is experienced in the preparation of time and material engineering estimates, as well as, in the writing of construction specifications and design criteria. She has extensive experience with the design of building renovations and additions. She has been involved in the design of numerous projects including power generation, steel production, postal service, medical facilities, and academic structures.

Project Experience

Education

Bachelor of Science, Civil Engineering, 1988, University of Pittsburgh

Experience

H.F. Lenz Company 2003-Present
 W.D. Engineers (Rust) 1996-2003
 Mark Engineers 1995-1996
 American Building Company 1993
 Dravo Engineers 1988-1992

Professional Registration / Certification

Professional Engineer in West Virginia

Professional Affiliations

Building Council

Potomac State College, Keyser, WV

- Structural design for Lough Gym air conditioning project; included reviewing existing roof trusses and design of new supports for the gym air handling units (AHU)

Carnegie Mellon University, Pittsburgh, PA

- Infrastructure study and report of the College of Fine Art's (CFA) structural engineering systems, included structural evaluation of utility tunnel
- Doherty Hall three phase renovation project that included the modernization of more than 10 classrooms
- Structural modifications for Wean Hall chiller replacement
- Structural engineering design for Facility Management Service (FMC) chiller plant

California University of Pennsylvania, California, PA

- Renovation of an existing classroom/office space to house the new state-of-the-art veterinary program with vivarium, laboratory and surgery spaces

University of Pittsburgh at Johnstown, Johnstown, PA

- Science and Technology building renovation and addition, including the renovation of the modernization of a 100+ seat, multi-use auditorium. Classrooms were designed with flexibility to be utilized by the science departments and other departments as needed

University of Pittsburgh, Pittsburgh, PA

- Renovations to the Life Sciences Complex
- Upgrades in Cathedral of Learning
- Multiple renovation projects involving steam and chilled water distribution systems, office facilities, and conference spaces and research labs, at the main and branch campuses

DAVID E. SNIDER, AIA, NCARB

PRINCIPAL - OWNER, PROJECT ARCHITECT

David joined Omni Associates in 1995 and became a Principal Architect in 2015. In 2022, David became an Owner in the firm.

David's practice has included diverse project types including primary, secondary, and higher-education facilities, office buildings, secure, mission critical facilities, health care facilities, commercial design, multifamily and single-family housing, and manufacturing facilities.

David has extensive experience with the preparation of construction documents, material specifications, and bidding documents as well as construction administration. Known as one of Omni's most effective project managers.

T: 304.367.1417 M: 304.844.0877 E: dsnyder@omniassociates.com

RECENT AND NOTEABLE EXPERIENCE

David has been involved in the following projects:

- of White Hall: Municipal & Safety Building
Hall, WV
 - Technology Foundation:
War Crime Offices
WV
 - Technology Foundation:
Crime Data Center
 - ent: Secure Facility
United States
 - an
Virginia
 - nt Middle School
West Virginia
 - Robert C. Byrd Aerospace Center
Bridgeport, West Virginia
 - Confidential Secure Inspection
Facility
Mid-Western, United States
 - Fairmont State University
Fairmont, West Virginia
 - Wallman Hall Renovations
 - Colebank Hall Renovations
 - United Technical Center
Clarksburg, West Virginia
 - Wardensville Community Center
Wardensville, West Virginia
 - Pendleton County Courthouse
Franklin, West Virginia
 - Morgantown Utility Board Office
Morgantown, West Virginia
 - Confidential R&D Facility
Northeastern, United States

EDUCATION

- Master of Architecture - Virginia Polytechnic Institute: 2001
- B.S. Engineering Technology (Architecture) - Fairmont State College: 1989
- Associate of Applied Design (Drafting and Design) - Fairmont State College: 1989

REGISTRATIONS & AFFILIATIONS

- American Institute of Architects, Member
- American Institute of Architects—West Virginia, Member
- Accredited Learning Environment Planner (ALEP)
- U.S. Green Building Council, Firm Membership Associated Builders and Contractors, Firm Membership
- Registered in Colorado, Ohio, Michigan and West Virginia

MARIAH FALCON

Project Manager

Mariah joined Omni Associates in May of 2021. Previously worked as an Intern Architect for the Mills Group. Prior to joining Omni Mariah worked as a BIM Application Specialist for MicroCAD providing training and detailed instruction for various architectural and engineering software including REVIT and CAD.

In her short time at Omni, Mariah has demonstrated the ability to quickly understand project development and management with a keen sense to think beyond the parameters of the task before her.

T: 304.367.1417 E: mfalcon@omniassociates.com

RECENT AND NOTEABLE EXPERIENCE

Mariah has been involved in the following projects:

Moorefield Volunteer Fire Company:

New Fire Station

Moorefield, WV

Exchange Bank:

Renovation of existing building for a

branch bank

Martinsburg, WV

Laurel Medical Center:

Renovation/addition to existing

building for a new medical clinic

Westernport, MD

EDUCATION

Master of Architecture: Lawrence
Technological University 2017

Master of Architecture:
University of North Carolina at
Charlotte; 2012

B.S. Architecture: Fairmont State
University; 2011

REGISTRATIONS &

AFFILIATIONS

U.S. Green Building Council, Firm
Membership

Associated Builders and Contractors
Inc., Firm Membership

DAN BALDWIN

Project Manager/Revit Operator

Dan joined Omni Associates in 2017 after a 30 plus year career in the construction industry focusing on residential and light commercial projects. Dan's vast experience includes working with clients from concept to completion; performing material take offs and scheduling; Project Management, Code Compliance and Quality Control.

T: 304.367.1417 E: dbaldwin@omniassociates.com

RECENT AND NOTEABLE EXPERIENCE

Dan has been involved in the following projects:

Confidential Data Center; Mid-Western, United States
Private Residential Home; Pete Dye Golf Course, *Bridgeport, WV*
Private Residential Home; Northwood Estates, Fairmont, WV
Private Residential Home; Bridgeport, WV
Apartment Buildings; Logan, WV
Apartment Buildings; Cowen, WV
Apartment Buildings; Charleston, WV
Apartment Buildings; Mason County, WV
Apartment Buildings; Fairmont, WV
Apartment Buildings; Fairmont, WV
Apartment Buildings; Fayetteville, WV
Apartment Buildings; Keyser, WV
Apartment Buildings; Moorefield, WV

EDUCATION

B.S. Architectural Engineering Technology
Fairmont State College - 1990

REGISTRATIONS & AFFILIATIONS

U.S. Green Building Council,
Firm Membership
Associated Builders and Contractors Inc.,
Firm Membership
WV Code Officials Association
WV Master Plumber - License#PL08877

TAB 4: PROJECT APPROACH



The following outlines our project approach to achieve the specific Goals / Objectives listed in the RFP:

Goal / Objective 1:

Review existing plans and conditions as well as the operation of the facility and evaluate while communicating effectively with the owner to determine a plan that can be implemented in a manner that will minimize disruption to concurrent operation of the facility and meet all objectives.

The first step will be to hold a project kickoff meeting with all stake-holders. The purpose of the meeting will be to receive input from Facilities on existing building deficiencies, outline possible design considerations, and ultimately develop a list of project goals that are to be met for the project to be successful. The second step will be to perform a thorough investigative survey of the buildings in order to evaluate existing systems and their conditions. Available existing drawings will be reviewed to help piece together system ages and also identify items that may not be apparent through visual inspection.

During the schematic design phase, the design team will develop options to upgrade the building's HVAC systems. This stage is paramount to identify system solutions that will work with future plans for the building that also fit within the budget. The schematic design will outline proposed system types and major utility routings. Project phasing will be considered to minimize disruptions to building operations. Near the conclusion of the SD phase, a cost estimate will be completed to help evaluate options and verify the project is within budget. After the schematic design documents are complete, the design team will hold a meeting with the University to review design concepts and receive input from stakeholders.

Goal / Objective 2:

As a portion of this process outlined in Objective 1, provide all necessary services to design the facilities in this EOI in a manner that is consistent with West Virginia State University needs, objectives, current law, and current code; while following the plan to design and execute the project within the project budget.

When the schematic design is approved the project will move into the Design Development Phase. This is where the initial concepts are put onto the plans and the systems are laid out, equipment is specified, and located, and distribution systems are drawn out. Once the drawings are approximately 35% complete, the documents will again be estimated to verify the project is on track with the budget. We will then submit the design documents and the estimate to the University for review. After the University has had an ample amount of time to review the documents, we will schedule a meeting to complete a page turn review of the documents. The applicable comments will be incorporated into the documents as they continue to progress.

Following approval of the Design Development package, the drawings will continue to be detailed and brought along until they are at a 95% Construction Document stage, with only some detailing and fine-tuning left to complete. Detailed coordination with WVSVU's personnel will occur to verify they are comfortable with allowed equipment manufacturers in our specifications and they are satisfied with maintenance provisions incorporated into our design. A final estimate will be completed. The documents will then be submitted to the University for review. A final review meeting will be held where the University will get a chance to review and understand the project before approving and allowing us to move forward with the finalization of the documents.

Goal / Objective 3:

Provide Construction Contract Administration Services with competent professionals that ensures the project is constructed and functions as designed.

Once the documents are completed, they will be sent in for permit review, and posted for contractors to prepare their bids. We will respond to any bidding RFI's that come in during this period and issue written addenda describing the response. Once the bids are received, we will assist the University in reviewing these bids and determining the lowest responsible bidder. After the contracts have been awarded, we will attend construction meetings and perform the construction administration to help verify work is in accordance with project specifications and best practices. If commissioning is desired, H.F. Lenz can perform these services or work with a 3rd party commissioning agent to verify systems are operating as intended. After construction is completed, we will complete drawing as-builts based on contractor red-lines.

Technologies

Some of the technologies that may be used to deliver a successful project include the following:

- **Laser Scanning (LiDAR)** - Imaging laser scanning equipment is used to accurately capture existing conditions, including complex spaces such as electrical and mechanical areas. The scanning hardware, in conjunction with the point cloud software (Autodesk ReCap Pro), allows us to effectively capture existing conditions as a 3D point cloud and 360-degree images. The point cloud and 360-degree images provide excellent reference during the design phase by providing a complete digital reference for the existing conditions that can be viewed from any location. The point cloud is also linked to our BIM models (Autodesk Revit) for dimensional reference to greatly enhance the precision and modeling time for existing conditions. Laser scanning provides greater survey detail than conventional methods, adding to the accuracy, efficiency, and cost effectiveness of the project.
- **Building Information Modeling (BIM)** - BIM (Revit) models are offered as part of our standard service. BIM models allow for more accurate coordination of MEP systems with building structure and other utilities.
- **Energy Analysis** - Energy models can be used to help decide amongst several possible HVAC systems types. Early in the design process energy models can be completed by the "block" method to help decide the system type at the initial stages of a project. At the end of the design process energy models can be used to compare the energy usage of the final design to a minimally designed code-compliant building.