



**H.F. LENZ
COMPANY**

1407 Scalp Avenue
Johnstown, PA 15904-3329
Phone: 814-269-9300
FAX: 814-269-9301

*Engineers
Planners
Surveyors
Energy Consultants*

August 14, 2009

Mr. John Abbott, Buyer
Purchasing Division
P.O. Box 50130
Charleston, WV 25305-0130

Subject: Architect and Engineering Services for the West Virginia Division of Corrections, Upgrade Electrical Service for Denmark Correctional Center, Hillsboro, West Virginia
Req #COR61423
HFL File No. 2009-8002.88

Dear Mr. Abbott:

Thank you for the opportunity to submit H.F. Lenz Company's qualifications for the Electrical Services Upgrade project for Denmark Correctional Center. Enclosed is one original and five copies of our submittal.

You will see in our enclosed submittal that we have provided engineering design services for numerous public and private clients, including several correctional centers, over the past 63 years. Many of these projects have involved the upgrade of electrical facilities. For this project we have chosen Alpha Associates, Inc., an architectural firm based in Morgantown, West Virginia, with whom we have completed more than ten Department of Defense projects (mainly Army Reserve Centers) throughout West Virginia, and numerous other projects for healthcare or educational facility clients. Our team is exceptionally well-qualified to provide the services required for this project.

If you have any questions, or would like additional information, please contact me at 814-269-9300. We look forward to working with you on this project.

Sincerely,

H.F. LENZ COMPANY

Thomas F. Deter, P.E.
Principal

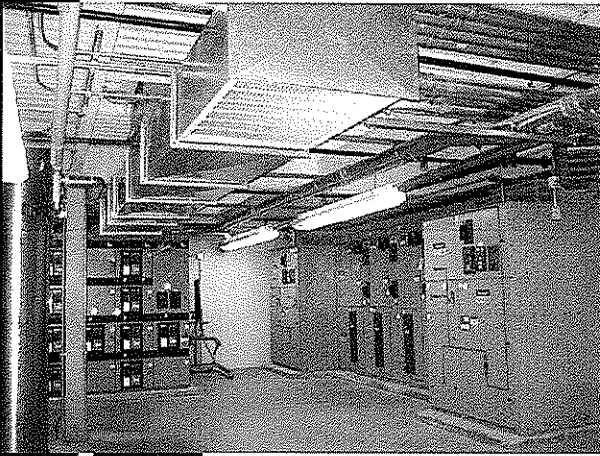
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Enclosures

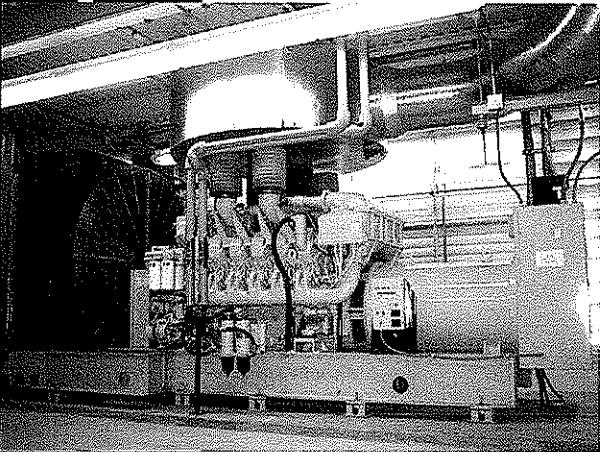
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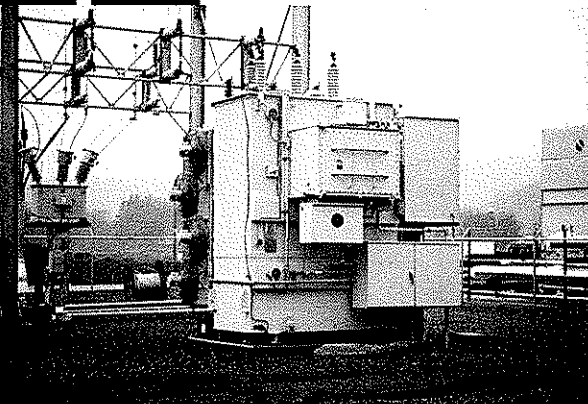
WV PURCHASING
DIVISION



**Architect and Engineering Services
for the
West Virginia Division of Corrections
Upgrade Electrical Service for
Denmar Correctional Center
Hillsboro, West Virginia**



**Purchasing Division
2019 Washington Street, East
P.O. Box 50130
Charleston, WV 25305-0130**



**Buyer: John Abbott
Req # COR61423
Opening Date: August 18, 2009
Opening Time: 1:30pm**

HFL File 2009-8004.67



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Enclosures



H.F. LENZ COMPANY

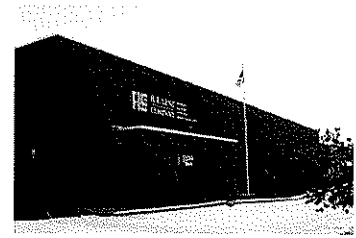
Firm Profile

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Currently in its 63rd year, the H.F. Lenz Company is a Pennsylvania-based firm offering a full range of engineering services for building systems, infrastructure, and industry. Our projects span the nation, with the heaviest concentration in the Northeast, and exceed \$300 million in MEP construction annually. A remarkable 85 percent of our work consists of repeat commissions from clients who appreciate our responsive, value-added service. Our in-house services include:



- Mechanical Engineering
- Electrical Engineering
- Plumbing Engineering
- Life Safety / Fire Protection Engineering
- Communications Engineering
- Energy Management
- Civil Engineering
- Structural Engineering
- Industrial Engineering
- Surveying
- Construction Phase Services
- Commissioning
- LEED™ Design Services

CORRECTIONAL FACILITY DESIGN

H.F. Lenz Company is nationally recognized engineering firm with extensive experience in criminal justice facilities. We understand the issues involved in designing building systems for this type of facility and we are thoroughly familiar with recent correctional trends. We will work closely with the client and the design team to develop the solutions that best meet our client's unique needs. Mechanical and electrical systems design in facilities dealing with incarceration differs from the design of conventional buildings in many ways. These systems must address items such as the confined occupant, the correctional facility staff interface, security, and life safety. Items of major concern include:

- Secure equipment to prevent damage, hidden contraband, suicide, or weapon manufacture
- Centralized control of lighting
- Ventilation air
- Specialized fire hose systems for riot control
- Non-secure access paths to mechanical equipment for maintenance considerations
- Centralized or non-secure locations for valves, mechanical, and electrical equipment
- Electronic plumbing systems for close control of individual cells, dayroom water management, and entire facility
- Humidity control to maintain ventilation in non-secure air conditioned areas
- Acoustic analysis to prevent excessive equipment noise

Our project team for this project is the same team that successfully worked together on the new 700,000 sq.ft. Forest County State Correctional Institute (SCI) (L5 facility) in Pennsylvania, completed in 2002. Our firm is also currently providing engineering services for the bridging documents for new 230-bed additions to the Pine Grove, Coal Township, and Cambridge Springs State Correctional Institutions (L3 facilities), and the 128-bed addition to the Forest County SCI. Our recent SCI experience also includes replacement of the steam lines and the repair of the main steam tunnel at SCI Camp Hill and the replacement of heating and cooling lines at SCI Fayette, both in Pennsylvania.



NEW PRISON FACILITY

H.F. Lenz Company provided HVAC, electrical, plumbing, fire protection, and civil/site engineering services for a new 700,000-sq.ft. prison facility situated on a 200 acre site in Forest County, Pennsylvania.

The new facility provides programming, support services and infrastructure for approximately 2,000 inmates. **The maximum security restricted housing unit contains 96 cells, and there are nine general population housing units which each have 128 cells.** The support services building includes a visiting room, health care, kitchen/dining, commissary, maintenance and correctional industries. The chapel, education and recreation services are part of the program services building.

In addition to site adaptations, the scope of work involved several design studies to update the prototypical design to meet current technology and code requirements and the Pennsylvania Department of Corrections standards.

To maximize cost efficiency, a top-down review of all aspects of the program was utilized to reduce the estimated construction cost by several million dollars. The project involved a phased design approach which divided the complex into twenty-seven bid packages to allow early award of long-lead items.

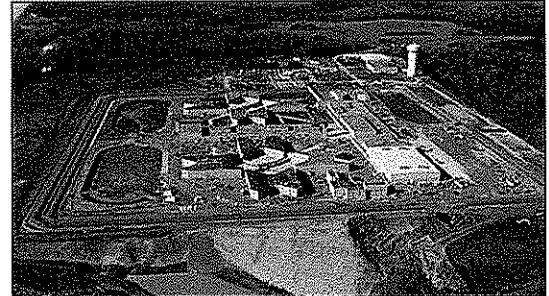
MEP features of the project included:

The **mechanical piping systems** for the prison facility included:

- 1800 BHP high temperature hot water boilers and central distribution piping including 4,800 LF of underground piping
- 1200 ton chilled water plant with central distribution piping (4,800 LF underground)
- Hot water convertors and building hot water heating piping
- Dietary steam boiler and steam and condensate piping system for food service equipment

The **electrical services** for the prison facility included:

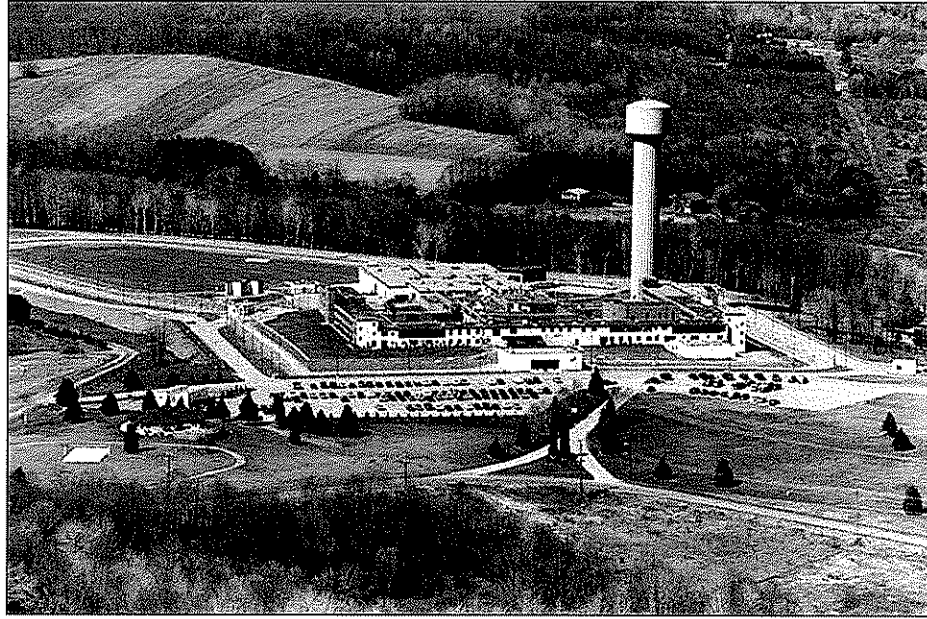
- 12.47 KV main-tie-main service entrance with campus-wide dual loop feed underground distribution systems



- Dual 2000KW diesel generation emergency power plant; 100% backup of entire facility
- Campus-wide metering/monitoring system with PLC control of remote circuit breakers featuring touch-screen human interface
- Campus-wide fire alarm system with fiber optic backbone
- Integrated low-voltage lighting control

The **plumbing and fire protection systems** for the prison facility included:

- A 5,000 LF underground domestic water distribution service main loops the perimeter of the site
- Domestic hot and cold water distribution piping supplies fixtures and equipment in each building; a hot water return circulation piping system is designed to adequately provide hot water to remote fixtures
- Natural gas distribution system, service pressure regulation, and equipment connections throughout the facility
- Sanitary sewer and storm water collection systems for each building and site
- Standard and penal/security plumbing fixtures were specified and located throughout the facility as required
- Special design considerations were required to identify the location, route, and accessibility of distribution supply lines, maintenance valves, and fittings for tamper resistant and security measures
- One million gallon elevated water storage tank system
- Fire suppression system including 2,500 gallon per hour fire pump and 5,000 LF of underground eight inch fire water distribution loop
- Fully sprinklered fire suppression for each building



Federal Correctional Institution. The \$4.3 million project for the Federal Bureau of Prisons was completed in 1990.

The H.F. Lenz Company provided full-scope engineering and surveying services to develop design and construction documents for improvements at this 550-inmate facility. A variety of improvements were designed to increase the security level from minimum security (Level 1), to medium security (Level 3).

The project included:

- New sally port/vehicular sally port with officers' station
- New reception building and new security station with monitoring consoles
- New maintenance garage five bays wide (included oil separator)
- Conversion of an existing garage to a segregation unit
- Security hardware and fixtures consisting of cameras, microwave detectors and motion detectors
- Double row of perimeter fencing 12 ft. high with razor wire and approximately one mile in length
- New perimeter roadway
- High-intensity roadway lighting
- Ground-mounted uplighting for building security
- Perimeter detection system
- Design of an emergency power system to serve the new perimeter lighting and new buildings
- Extension of site utilities to new buildings
- Stormwater handling
- Underground diesel and gasoline fuel storage tanks
- Reconstruction of outdoor recreation area
- Complete topographic survey of the site
- Construction observation and administration services



Federal Correctional Institution

Loretto, Pennsylvania

- Mechanical, electrical, and plumbing design for five buildings
- Increased security level from Minimum Level 1 to Medium Level 3
- Reconstruction of outdoor recreation area
- New perimeter roadway
- Security fencing and lighting
- Perimeter detection system and security hardware
- Topographic and utility surveys

State Correctional Institution

Forest County

Marienville, Pennsylvania

- Mechanical, electrical, plumbing, fire protection, and civil/site design services for a 700,000 sq.ft. 2,000-inmate prison facility

City of Suffolk Jail

Suffolk, Virginia

- Complete mechanical, electrical, and fire protection design for a new 50,000 sq.ft. jail to house 350 inmates

Cambria County Jail

Ebensburg, Pennsylvania

- Development of a phased improvement program to correct mechanical and electrical deficiencies

Cambria County Juvenile Detention Home

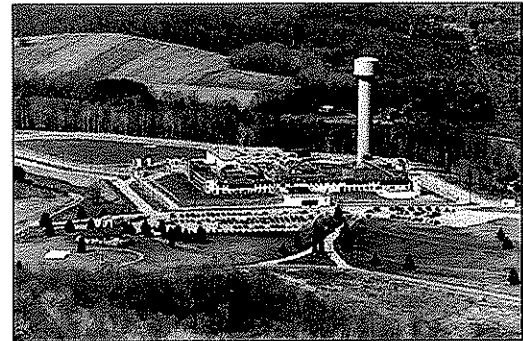
Ebensburg, Pennsylvania

- Deficiency evaluation and energy conservation improvement study of the existing 12-cell facility
- Construction documents for converting the second floor to a four-room sheltered care center for county use

Alderson Federal Correctional Institution

Alderson, West Virginia

- Complete HVAC, electrical, and fire protection design for conversion of training rooms to production areas



The Federal Correctional Institution in Loretto houses 550 inmates.

Garrett County Courthouse and Jail

Garrett County, Maryland

- Renovations to existing buildings
- New minimum, medium, and maximum security area
- New kitchen and exercise areas
- New parking garage

Westmoreland County

Correctional Institution

Greensburg, Pennsylvania

- New mechanical, electrical, and plumbing systems

Westmoreland Juvenile Detention Center

Greensburg, Pennsylvania

- Mechanical, electrical, and plumbing systems for new facility

Indiana County Jail

Indiana, Pennsylvania

- Evaluation and design of mechanical, electrical, and plumbing systems for a new jail structure

Camp Hill State Correctional Institution

Camp Hill, Pennsylvania

- Mechanical, electrical, and structural engineering, and construction monitoring services for the replacement of the steam lines and the repair of the main steam tunnel



Firm Profile

Alpha Associates, Incorporated

Firm Name: Alpha Associates, Incorporated

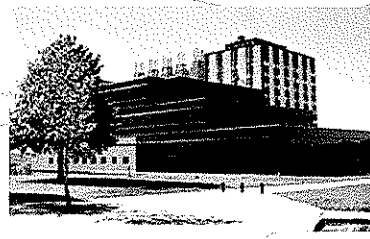
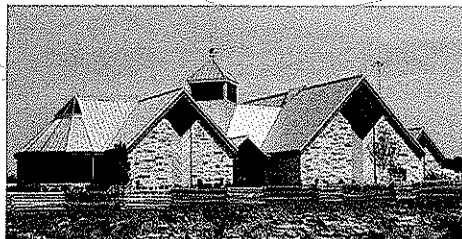
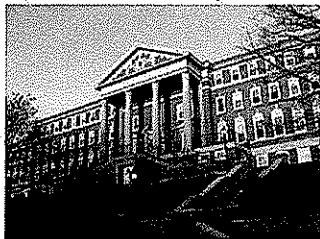
Corporate Office: 209 Prairie Avenue
Morgantown, West Virginia 26501

Eastern Regional Office: 535 West King Street
Martinsburg, West Virginia 25401

Incorporated: 1969; Morgantown, West Virginia

Firm Principals: Richard A. Colebank, PE, PS; President and COO
Richard W. Klein, PE, PS; Chairman and CEO
William A. Atwell, Jr., PE; Senior Vice President
James A. Davison, AIA; Vice President
Charles B. Luttrell, PE; Principal
Steven V. Buchanan, PE, PS; Principal
Matthew S. Breakey, AIA; Principal
Charles B. Branch, PE; Principal

Number of Employees: 33 Employees



Alpha Associates, Incorporated was established in 1969 and since that time has completed hundreds of projects throughout Morgantown and the state of West Virginia. Alpha's Corporate Office is located in Morgantown with our Eastern Regional Office located in Martinsburg.





Schematic Design

The first step which will be undertaken will be to attend a kick-off meeting with the West Virginia Division of Corrections (WV DOC). During this meeting, the WV DOC can discuss the project scope and the overall objectives for the project. The team will discuss logistics and protocol of the project with respect to surveying, correspondence, schedule, and deliverables.

H.F. Lenz Company (HFL) will conduct a survey of the existing system. This survey will include a detailed review of the electrical distribution equipment, so that HFL completely understands the loading, feeder routings, condition of the equipment, and any problems that the WV DOC is experiencing. HFL will review existing electrical equipment locations and trace the routing of feeders in order to develop an accurate understating of the system.

In order to fully understand the existing conditions, any available reference drawings will be reviewed in detail. This effort will supplement the survey of the system. The review of existing drawings cannot always be relied upon as the most accurate source of information. The reference drawings will sometimes only give a conceptual idea of how the system was configured as many times the systems are not installed per the original design drawings or the system has been significantly revised over the years. We use the reference drawings as a guide, but we use our high level of survey as the basis of developing a record of the existing system configuration.

Concept Phase

HFL will begin to develop system concepts and possible recommendations for the electrical distribution system upgrades. This would be an appropriate time to discuss our findings and initial concepts with the WV DOC. The team could discuss the possible recommendations during a meeting to confirm whether each of the possible recommendations is feasible. From this meeting, HFL will then have a better understanding of the WV DOC's objectives and desires in order to proceed with the Schematic Design.

HFL would then proceed with the schematic design and narrow down the list of possible recommendations to the most feasible concepts. We would then further explore the selected recommendations and develop schematic level diagrams and narratives. Estimates of probable construction costs for the selected recommendations would be compiled. The Schematic Design that will be submitted will include the following information:

- Proposed scope of work for all trades
- Outline Specifications
- Description of recommended equipment
- Phasing requirements
- Drawings and photographs
- Schematic Level Diagrams – as required to convey the recommendations
- Estimates of Probable construction cost

A final schematic phase review meeting will allow the WV DOC to convey their comments of the schematic design.



Design Development

Once reviewed and approved by the WV DOC, the project would move to the design development stage and begin developing working construction documents. This phase of design allows HFL to establish the size configuration of the electrical equipment and begin developing the space requirements needed to house the gear. These efforts afford the design team the opportunity to investigate the details of the project in order to facilitate the electrical system upgrades. An onboard review meeting would be scheduled to keep all personnel up to date on the progress of the design. HFL would submit 50% construction documents and have an on board review with the WV DOC to establish project responsibilities.

Construction Document Submission

The construction document phase of the project is the culmination of the efforts put forth in the previous stages of the project. HFL will document the design with detailed drawings and specifications which provide the direction to the contractor for bidding and construction. A 95% Review Submission would include drawings, specifications, and an updated cost estimate.

Based upon the collection of all of the WV DOC's design review comments and the finalization of the drawings and specifications, HFL will prepare the final construction documents to be issued for bidding purposes. HFL will also verify a final cost estimate at this time to make any necessary adjustments based on the current market trends with regard to equipment, costs, and construction costs.

Issue Prepurchase Equipment Package

To improve the construction schedule there may be a need to prepurchase the equipment to limit the delivery time impact to the project. This can be determined at a later date, once the project schedule is established.

Review Bids

HFL will assist the WV DOC, if requested, in evaluating contractors' bid submissions to help determine whether each bid has been responsive to the final bid documents and try to determine whether prices and scope of work are accurate.

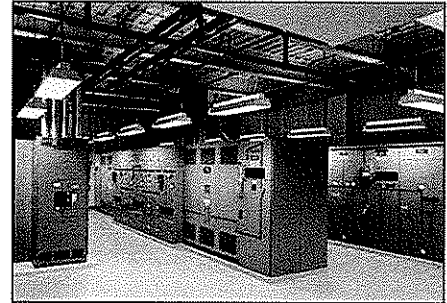
Construction Administration Phase

HFL will assist the WV DOC during the Construction Administration Phase. We will provide responses to RFI's in order to provide guidance to the contractor with regard to interpretations of the contract documents. HFL will also review submittals prepared by the contractor to verify that they also comply with the specified equipment and the intent of the documents. If needed, HFL will provide on-site observation to monitor the construction progress and confirm that the installation is being completed in accordance with the contract documents.



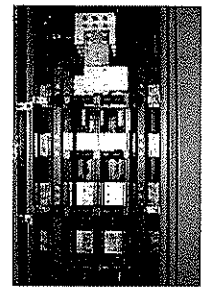
Electrical Engineering Experience

Electrical Distribution Systems. Many buildings today are in need of electrical renovations/ retrofits due to the age of the existing systems, increased loads, code compliance issues, and future growth plans. Our Electrical Engineers have extensive experience in building electrical upgrades for both public and private clients, including corectional institutions, military facilities, and health care facilities.



H.F. Lenz Company's experience with building-wide electrical distribution systems includes the evaluation, upgrade, and replacement of the following:

- Unit substations
- Switchboards
- Distribution risers
- Branch panelboards
- Loadcenters
- Feeders
- Automatic transfer systems
- Emergency power systems
- Individual generators and generators in parallel



We have performed this work as the Prime Professional, as part of an AE team, and with contractors as part of a design/build delivery method. On most projects we employ careful phasing and the use of temporary services so that the building can remain occupied with minimal disruption to ongoing operations.

H.F. Lenz Company has a team of experienced electrical engineers and designers who understand how electrical systems are configured based on a wide variety of experience in many types of buildings. Our Team reviews any existing documentation which might be available to understand the general configuration of the system. Many times, however, the actual installation was either not installed in accordance with the original drawings or has been significantly revised over the years of occupancy. Our Team is dedicated to spending the time within the existing building to understand how the system is organized. From this understanding, H.F. Lenz Company will prepare an existing riser diagram and/or one-line diagram depicting the actual conditions within the building. Based on this research, we can then fully understand how the replacement of the equipment, feeders, etc., can be phased to minimize the disruption to the entire building, or to portions of the building, based on occupancy needs. This approach to understanding the complete system results in a very accurate system design and also reduces the change orders that may be common on designs which do not provide this level of investigation.

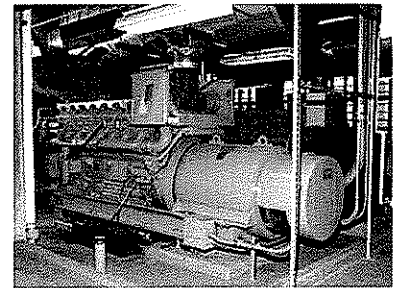
Medium Voltage Experience. Our experience includes medium voltage systems that range from (5 to 46kV). This experience includes indoor and outdoor distribution equipment. Typical designs utilize substation transformers, vacuum breakers, underground distribution duct banks, manholes and electrical vaults. Campus wide distribution systems also include pad mounted switches with vacuum interrupters, pad mounted transformers and medium voltage generators housed in separate buildings or in outdoor walk-in enclosures. These designs comply with the latest codes and they meet the National Standards that are applicable to the project and the owners' needs.



Campus Distribution Systems. For campus wide distribution systems, we can reference several projects. In one case, we extended an existing system that utilized vacuum breakers housed in a walk in enclosure to distribute 12.47 kV power to the campus. The breakers were centrally located, and power was distributed to each building by way of load break sectionalizing switches with fusible output switches to protect each building transformer. Each building was supplied by an outdoor pad mounted transformer, or indoor liquid filled transformers. Another project included a 13.2 kV campus wide distribution system. In this case we worked with the utility to provide a centralized 138/13.2 kV substation on site in order to supply building complexes on two separate campuses. This system utilizes low profile, load break switches that utilizes vacuum interrupters for output circuit protection. This particular brand of pad mounted switches utilizes sulfur hexafluoride gas as an insulating medium for internal electrical components. Each building utilizes indoor unit substations or outdoor pad mounted transformers to supply low voltage power to the building. Primary transformer protection is provided by the pad mounted switch vacuum interrupters and their protective relay settings. Both projects utilize a combination of skirted cable terminators or load break elbows as approved cable terminating devices.

Short Circuit Analysis and Relay Coordination Studies. Short circuit studies are performed to determine the level of available fault current throughout the power distribution system. As a design standard, all equipment installed in any of our power distribution system designs must be rated for the available fault current plus an additional 20% for a margin of safety. Equipment protection not only requires equipment that can withstand the available fault current, but it also includes protective devices such as fuses or breakers that can interrupt a fault fast enough to prevent significant equipment damage. Fuses have a fixed characteristic curve that represents its ability to clear a fault at a specific current during a given period of time. Breakers have a similar function, however, their characteristic curve is controlled by a programmable relay. The fault interrupting characteristics of fuses and breakers must be coordinated in an electrical system design such that a fault can be cleared before significant equipment damage occurs, and it must be isolated to the smallest portion of the distribution system so that the rest of the system can remain operational. Our system designs include coordinated over current protection, they also include ground fault protection, differential current flow protection, reverse current flow protection, loss of phase protection, and voltage unbalance protection where required by codes or by National Standards.

Emergency and Standby Power Systems. H.F. Lenz Company has provided minor and major upgrades or replacement of emergency power systems for a wide variety of facilities. These projects include complete systems with generators, paralleling gear, switchboards, transformers, automatic transfer switches, and distribution systems. These systems have become more critical than ever before as more equipment, support systems, and day to day operations are connected to the emergency power systems.

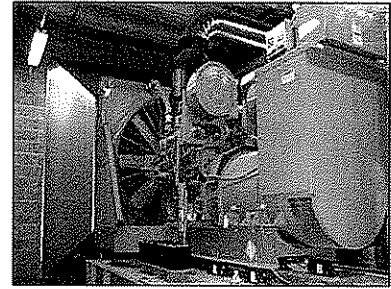


This 900 kW generator is paralleled with three others to provide 3.6 megawatts of reliable alternate power

H.F. Lenz Company engineers have theoretical and practical experience applying code requirements and functional needs for the three emergency power branch systems: Life Safety, Critical, and Equipment Systems. The challenge is providing the hospital with cost-effective, reliable, and expandable normal and emergency power. A challenge we have met many times with great success!



Our extensive experience with onsite power generation includes generator systems for data centers, hospitals, office buildings, and other facilities that require a reliable source of alternate electrical power. We have specified both diesel and natural gas-driven generators with kilowatt ratings ranging from 100 kW to 2,000 kW each. We are experienced with both low and medium voltage systems. Our engineers are very familiar with designing systems where two or more generators are paralleled to increase the total kilowatt rating. We also provide complete load shedding controls for facilities who wish to save on their annual electric costs by becoming a utility curtailing customer.



1,000 kW diesel generator equipped with 2,000-gallon fuel tank for 24-hours of continuous operation

Parallel Redundant Systems. Generator paralleling is accomplished when the voltage and frequency output of two or more generators is matched using appropriate controls and switches. Paralleling generators allows the electrical output of the units to be synchronized and combined in order to increase the total kilowatt rating.

One example of an emergency power system design that has served the owner quite well is Altoona Hospital. A unique aspect of this project was the hospital's desire to operate all chillers on emergency power, which far exceeded the more common use of a smaller, dedicated chiller serving operating rooms and intensive care units. Also a requirement to perform monthly generator testing using minimal maintenance personnel was desired. In order to comply with the design criteria and satisfy the total projected load, four 900 kW, 4,160 volt generators were paralleled. The 30% generator nameplate / 50% facility test load requirements listed in NFPA 110 were easily satisfied by this paralleling arrangement. The paralleling controls required the design of equally matched rotor pitches to prevent circulating currents when operating as paralleled units.

The use of closed transition transfer switches for equipment systems applications connected to a central control annunciator allowed testing to be performed by a single maintenance person. This particular system not only simplified monthly testing requirements, it also allowed the owner to use the same procedure for **load shedding**. After construction was complete in 1994, the Altoona Hospital signed up with the local electric utility to be classified as a curtailable customer. In times of peak demand, the utility calls the hospital with load shedding instructions. Simply by conducting a routine monthly load test, the hospital is able to comply with curtailment requirements and achieves an energy bill credit of at least \$80,000 (based on 1997 data). This system has not only served the hospital well as an emergency power system, but its load shedding capabilities have also represented a partial return on investment.

NFPA 110 Involvement. H.F. Lenz Company's Chief Electrical Engineer, David Watters, is a member of the Emergency and Standby Power Systems (NFPA 110) Committee. This group is responsible for writing some of the most important codes that affect emergency power systems design. Among the most sensitive issues the committee is addressing is the so called "30/50 rule," which places restrictions and requirements on how generators are load tested each month. Another key issue relates to the configuration of the room that houses the generator(s), and the equipment that is restricted from that room. The basic intent of NFPA 110 is to provide a reliable emergency power system that will operate with minimal chance of failure upon loss of power and that is capable of operating should catastrophic failure apply to the normal power system. These features are incorporated into all H.F. Lenz Company designs.



Altoona Hospital

Altoona, Pennsylvania

- New 12.47 kV double-ended primary electric service
- Design of automatic testing and load shedding controls
- Two new 900 kW emergency generators

Electronic Payment Services, Inc.

Wilmington, Delaware

- Power reliability evaluation and design of new UPS system and standby power system

Good Samaritan Medical Center

Johnstown, Pennsylvania

- 23 kV overhead primary electric service
- 250 kW diesel-fueled emergency generator

Indiana Hospital

Indiana, Pennsylvania

- Relocation and installation of new 22.9 kV and 4.15 kV distribution system

Internal Revenue Service

Philadelphia, Pennsylvania

- Uninterruptible power supply for a 445,000 sq.ft. data center

Main Justice Department

Washington, D.C.

- Electrical upgrades for the renovation/retrofit of a 1.3 million sq.ft. federal office building

Market Street State Office Building

Harrisburg, Pennsylvania

- Electrical system design for a new 16-story, 450,000 sq.ft. office building including two 2,500 kVA transformers

Mellon Card Services Center

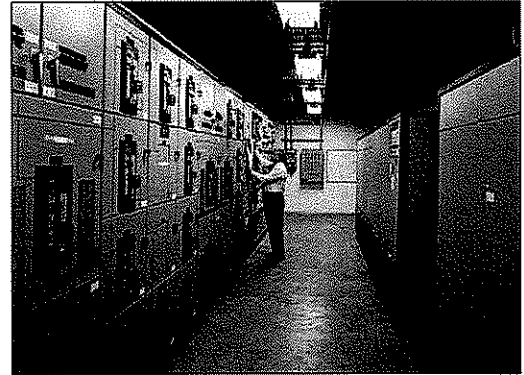
Wilmington, Delaware

- Electrical design of an 80,000 sq.ft. terminal facility including a 125 kVA UPS system

Mellon Client Service Center

Pittsburgh, Pennsylvania

- Complete electrical design for a new 650,000 sq.ft. operations center
- 3-2000 kW standby generators back up the entire system through a prioritized load shedding system



Internal Revenue Service. The UPS equipment serves three main computer systems with over 900 terminals. The project earned a national CSA Design Award.

Mellon Independence Center

Philadelphia, Pennsylvania

- Three electrical service lines with automatic switching system

FedEx Ground Headquarters

Pittsburgh, Pennsylvania

- Complete electrical design for a new 350,000 sq.ft. corporate headquarters facility and data center

SEPTA Corporate Headquarters

Philadelphia, Pennsylvania

- Electrical distribution for a 20-story 660,000 sq.ft. high rise

Social Security Administration

Data Operations Center

Wilkes-Barre, Pennsylvania

- 12.4 KV dual primary electric service
- Emergency generator

Veterans Affairs Medical Center

Aspinwall Facility

Pittsburgh, Pennsylvania

- New dual feed 23 kV underground primary service for 30 buildings

Veterans Affairs Medical Center

Philadelphia, Pennsylvania

- New underground 13.2 kV power distribution network with new distribution switchgear and manholes



**Saint Joseph's University
Facilities Master Plan
Philadelphia, Pennsylvania**

- Survey and evaluation of 11 major buildings totaling over 750,000 sq. ft. to identify deficiencies in the electrical systems and make recommendations for corrective action
- Development of a facilities master plan that identified items requiring immediate stabilization and identified and prioritized the various needs for repair, alteration, maintenance, and new construction

**Geneva College
Beaver Falls, Pennsylvania**

- Electrical design for a new three-story, 30,000 sq. ft. academic building

**Living and Learning Center
University of Pittsburgh at Johnstown
Johnstown, Pennsylvania**

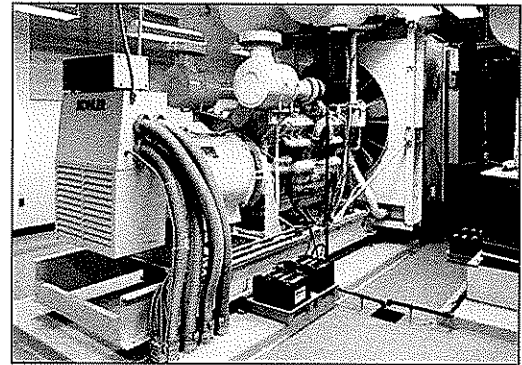
- Electrical design for a new 100,000 sq. ft. student housing / conference center

**Mount Aloysius College
Cresson, Pennsylvania**

- Electrical design for a new 22,436 sq. ft. academic building

**University of Pittsburgh at Johnstown
Johnstown, Pennsylvania**

- Electrical distribution study



Social Security Administration. The standby power system for SSA's data operations center in Wilkes-Barre, Pennsylvania includes a separate on-site generator for the data processing loads.

**Westminster College
New Wilmington, Pennsylvania**

- Upgrade electrical distribution system in nine dormitories

**Grove City College
Grove City, Pennsylvania**

- Evaluation of the systems and controls in 21 buildings on the campus to identify energy conservation options



EPS Data Center

Wilmington, Delaware

- Diesel, two 1500 kW, 277/480 volts
- Paralleling switchgear

FedEx Ground

Pittsburgh, Pennsylvania

- Diesel, two 900 kW, 480 volts

Good Samaritan Medical Center

Johnstown, Pennsylvania

- Diesel, 250 kW, 120/208 volts

Indiana Hospital

Indiana, Pennsylvania

- Diesel, 230 kW, 120/208 volts

IRS Service Center

Philadelphia, Pennsylvania

- Diesel, 175 kW, 277/480 volts

Market Street State Office Building

Harrisburg, Pennsylvania

- Diesel, 1100 kW, 277/480 volts

Mellon Client Service Center

Pittsburgh, Pennsylvania

- Diesel, three 2000 kW, 277/480 volts

National Drug Intelligence Center

Johnstown, Pennsylvania

- Diesel, two 275 kW, 277/480 volts

Pennsylvania State Capitol Complex

Harrisburg, Pennsylvania

- Diesel, two 460 kW, 277/480 volts
- Diesel, four 350 kW, 277/480 volts
- Paralleling controls

SEPTA Headquarters

Philadelphia, Pennsylvania

- Diesel, 1250 kW, 277/480 volts

Seton Hill College

Greensburg, Pennsylvania

- Diesel, 200 kW, 277/480 volts

Lincoln County 911 Center

Hamlin, West Virginia

- Diesel, 500 kW, 277/480 volts

Shady Side Hospital

Pittsburgh, Pennsylvania

- Gas, three 800 kW, 2400/4160 volts
- Paralleling controls
- Three 750-ton chiller unit combines

Social Security Administration

Wilkes-Barre, Pennsylvania

- Diesel, 800 kW, 277/480 volts
- Diesel, 275 kW, 277/480 volts

Veterans Affairs Medical Center

Aspinwall Facility

Pittsburgh, Pennsylvania

- Diesel, 600 kW, 277/480 volts
- Diesel, 350 kW, 277/480 volts

Veterans Affairs Medical Center

Oakland Facility

Pittsburgh, Pennsylvania

- Diesel, 450 kW, 277/480 volts

Children's Hospital of Pittsburgh

Pittsburgh, Pennsylvania

- Diesel, 1000 kW, 277/480 volts

Heritage Health System, The Medical Center

Beaver, Pennsylvania

- Paralleling switchgear
- Paralleling controls

State Correctional Institute

Marienville, Pennsylvania

- Diesel, dual 2000 kW

Social Security Administration

Woodlawn, Maryland

- Diesel, 1000 kW/1250 kVA, 277/480 volt, 3-phase, 4 wire transformers

Veterans Affairs Medical Center

Philadelphia, Pennsylvania

- Diesel, two 600 kW, 277/480 volts
- Paralleling Controls

Wanamaker Building

Philadelphia, Pennsylvania

- Diesel, 900 kW, 277/480 volts
- Diesel, 1200 kW, 277/480 volts



- Thomas Boulevard**
University of Pittsburgh
Pittsburgh, Pennsylvania
- Diesel, 300 kW, 277/480V
 - Outdoor enclosure

- Benedum Hall**
University of Pittsburgh
Pittsburgh, Pennsylvania
- Diesel, 600 kW, 277/480V
 - Outdoor enclosure

- Carrillo Street Steam Plant**
University of Pittsburgh
Pittsburgh, Pennsylvania
- Diesel, 1 MW, 277/480V
 - Paralleled with existing 1 MW Generator

- Mellon Institute**
Carnegie Mellon University
Pittsburgh, Pennsylvania
- Diesel, 500 kW
 - Automatic Transfer Switches and distribution panels

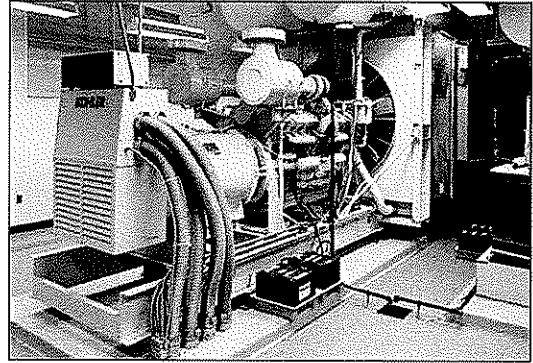
- 300 Craig Street**
Carnegie Mellon University
Pittsburgh, Pennsylvania
- Diesel, 350 kW, 277/480 volts

- Cyert Hall**
Carnegie Mellon University
Pittsburgh, Pennsylvania
- Diesel, 1000 kW, 277/480 volts

- 6555 Penn Avenue**
Carnegie Mellon University
Pittsburgh, Pennsylvania
- Diesel, 35 kW, 120/208 volts

- Doherty Hall**
Carnegie Mellon University
Pittsburgh, Pennsylvania
- Diesel, 500 kW, 277/480 volts

- Moorewood Gardens Towers**
Carnegie Mellon University
Pittsburgh, Pennsylvania
- Diesel, 250 kW, 277/480



Social Security Administration. The standby power system for SSA's data operations center in Wilkes-Barre, Pennsylvania includes a separate on-site generator for the data processing loads.

- New House First Year Residence Hall**
Carnegie Mellon University
Pittsburgh, Pennsylvania
- Diesel, 250 kW, 277/480

- Alter Hall, Fox School of Business**
Temple University
Philadelphia, Pennsylvania
- Diesel, 250 kW, 277/480

- Fairmont State College**
Fairmont, West Virginia
- Diesel, 100 kW, 277/480 volts
 - Automatic Transfer Switches

- Haverford Upper School**
Bryn Mawr, Pennsylvania
- Diesel, 250 kW, 277/480

- West Virginia University Hospitals**
Ruby Memorial Hospital
Morgantown, West Virginia
- Two new 800kW diesel generators
 - Paralleled together via digital paralleling switchgear
 - Automatic Transfer Switch upgrade

- Altoona Hospital**
Altoona, Pennsylvania
- Diesel, four 900 kW, 4160 volts
 - Paralleling controls



H.F. LENZ
COMPANY

Video Surveillance and Security Systems

Security systems vary in their complexity and the level of protection they provide. H.F. Lenz Company's security system experience includes: integrated vault security systems, closed circuit television, door monitoring, card readers, infrared motion detectors, metal detectors, and integration with fire and life safety systems.

One recent security system upgrade project involved video surveillance for a major government agency's Pittsburgh facility. This project included new CCTV cameras, door monitoring contacts, elevator cab and turnstile card readers, and emergency assist telephones. The facility's central security operations center included CCTV monitors, CPU, printer monitor, and all related control accessories. New security panels were interfaced with an existing fire alarm system to unlock electrically-operated doors in the event of a fire.



The H.F. Lenz Company has worked closely with security consultants to provide power and conduit for a variety of raceway infrastructures. Our surveillance/security system projects include:

Department of Justice Building
Washington, D.C.

William J. Nealon Federal Building
and U.S. Courthouse
Scranton, Pennsylvania

National Drug Intelligence Center
Johnstown, Pennsylvania

Pennsylvania State Capitol
Complex Addition
Harrisburg, Pennsylvania

Market Street State Office Building
Harrisburg, Pennsylvania

Federal Correctional Institution
Loretto, Pennsylvania

Veterans Affairs Medical Centers
Pittsburgh and Philadelphia, Pennsylvania

Altoona Hospital
Altoona, Pennsylvania

Geneva College
Beaver Falls, Pennsylvania

Social Security Administration
Data Operations Center
Wilkes-Barre, Pennsylvania

Altoona Mercy Hospital
Altoona, Pennsylvania

Heritage Health System, The Medical Center
Beaver, Pennsylvania

Mellon Bank Center
Philadelphia, Pennsylvania

Altoona Railroaders Museum
Altoona, Pennsylvania

Price Waterhouse
Philadelphia, Pennsylvania

One Mellon Center
Pittsburgh, Pennsylvania

Union Trust Building
Pittsburgh, Pennsylvania

Three Mellon Center
Pittsburgh, Pennsylvania



Mr. Deter is responsible for the engineering design of all trades, the supervision of senior designers, the preparation of reports to determine optimal systems and/or equipment selections, and the coordination and checking of contract documents for completeness and quality. He is responsible for coordination with the client, the architect, regulatory agencies, and the engineering staff; project scheduling; and other project management functions. Mr. Deter is experienced in the design of building 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. His project experience includes (*indicates previous experience):

Lincoln County
Hamlin, West Virginia
New 911 center

National Drug Intelligence Center
Johnstown, Pennsylvania
Tenant fit-up of 87,500 sq.ft. of secure office and data center space for a government agency

William J. Nealon Federal Building and U.S. Courthouse
Scranton, Pennsylvania
– *U.S. Marshal's Service space*
– *New \$36 million courthouse annex and repair and alteration of existing federal building*

Federal Courthouse Complex
Erie, Pennsylvania
– *U.S. Marshal's Service Space*
– *New \$24 million courthouse annex and renovation to three existing historic buildings*

Somerset County Courthouse
Somerset, Pennsylvania
– *U.S. Marshal's Service Space*
– *New 911 Center*
– *Renovation of historic courthouse*

Pennsylvania Turnpike Commission
Harrisburg, Pennsylvania
New three-story addition and renovation to the Central Administration; LEED™ Certified

Education

Bachelor of Science, Electrical Engineering Technology, 1987, University of Pittsburgh at Johnstown

Experience

H.F. Lenz Company 1992 – Present • Parfitt/Ling Consulting Engineers 1990 - 1992

Gary Johnston & Assoc., Inc. 1987 - 1990

Professional Certification

Licensed Professional Engineer in Pennsylvania, Illinois, Maryland, New Jersey, Ohio, Virginia, and West Virginia; LEED™ Accredited Professional

Pennsylvania National Guard Facility
Johnstown, Pennsylvania
New 23,560 sq.ft. facility with 8,000 sq.ft. of office and maintenance shop area and the remainder for storage and eight vehicle maintenance bays

Department of Homeland Security –
Immigrations and Customs Enforcement
National Firearms Unit, Altoona, Pennsylvania
New 2,300 sq.ft. office addition, 1,400 sq.ft. basement for storage, and replacement of HVAC LAW for indoor firing range

New Armory, PA Dept of Military Affairs
Ford City, Pennsylvania
New 24,400 sq.ft. training center and new maintenance shop

U.S. Army Reserve Center
– *Wheeling, WV - New 24,000 sq.ft. training building and new maintenance shop*
– *Grantsville, WV - New 15,300 sq.ft. training building and new maintenance shop*

U.S. Drug Enforcement Agency
Pittsburgh, Pennsylvania
New 50,000 sq.ft. office building with 25,200 sq.ft. parking garage –LEED™ Certified

Social Security Administration
Wilkes-Barre, Pennsylvania
New 240,000 sq.ft., data operations building



Mr. Mulhollen is experienced in the design of power distribution systems, control systems, emergency power systems, lighting and emergency lighting systems, fire alarm systems, security, sound, and telecommunication systems for correctional, educational, institutional, industrial, health care, and commercial facilities. Mr. Mulhollen's project experience includes (*indicates prior experience):

State Correctional Institute
Camp Hill, Pennsylvania
Replacement of steam lines and repairs to steam tunnel

State Correctional Institution,
Camp Hill, Pennsylvania*
– *Electrical distribution upgrade and boiler plant upgrade totaling \$3 million totaling \$300,000*
– *Electrical distribution upgrade and Gate House totaling \$5.6 million*

Anthony Juvenile Correctional Center*
Neola, West Virginia
Electrical design of correctional facility

Erie County Jail*
Erie, Pennsylvania
Electrical design of correctional facility

West Virginia Department of Corrections*
Neola, West Virginia
Anthony Correctional Center

Philadelphia Police Department
Philadelphia, Pennsylvania
Building assessment and recommendations for improvements, energy analysis and operation cost analysis for the 6th District Station

Lincoln County
Hamlin, West Virginia
Electrical design for new 911 center

Allegheny County 911 Center*
Allegheny County, Pennsylvania
Project involved locating a 911 center in an existing building. The center consisted of 60,000 sq.ft. of administration space and 3,500 sq.ft. of data center space.

Westmoreland County 911 Center*
Westmoreland County, Pennsylvania
New 25,000 sq.ft. center consisting of computer and administration space. Project included new power distribution, total emergency power backup, new lighting, grounding, fire alarm, security, and communications design

Pennsylvania Turnpike Commission
Central Administration Building
Harrisburg, Pennsylvania
New three-story addition and renovation to the Central Administration Building which houses the Police Troop T Command Center - LEED™ Certified Building

Department of Treasury*
New Troop "C" Headquarters
Trenton, New Jersey
New 85,000 sq.ft. police barracks with training areas, administration areas, car maintenance area, and dispatch area

U.S. Drug Enforcement Agency
Pittsburgh, Pennsylvania
New 50,000 sq.ft. office building with 25,200 sq.ft. parking garage -LEED™ Certified

Education

Bachelor of Science, Electrical Engineering, 1988
Pennsylvania State University, University Park, Pennsylvania

Experience

H.F. Lenz Company 1999
L. Robert Kimball & Associates 1996 - 1999
E.A. Mueller, Inc. 1988 - 1990 • Leach Wallace Associates, Inc. 1990 - 1996

Professional Registration / Certification

Licensed Professional Engineer in Pennsylvania, Maryland, and New Jersey

Professional Affiliations

Institute of Electrical and Electronics Engineers, Inc.



Mr. Mickle is responsible for the design of complete electrical systems for facilities. Mr. Mickle's key responsibilities include: coordination of building electrical, telephone and cable television services with respective utility companies; lighting design; power system design; fire alarm system design; sound system design; clock system design; stage lighting design; nurse call system design; emergency power system and lighting system design; electrical connection of HVAC, plumbing, and other miscellaneous equipment; writing of specifications; design of 5 KV and 12 KV underground electrical distribution systems; design of electrical systems for health care facilities; design of roadway lighting systems; design of electrical systems for military facilities; checking of plans and specifications for quality control; project management, building study and evaluation. His project experience includes (*indicates previous experience):

Pine Grove and Coal Township State
Correctional Institutions
*Bridging documents for new 200-bed additions
to Pine Grove and Coal Township SCIs.
Project is currently in design*

Pine Grove State Correctional Institute*
Indiana, Pennsylvania
*Design of the facility's campus medium voltage
electrical distribution system. Project included
two 2.0 MW emergency generators, medium
voltage paralleling switchgear, and SCADA
(Supervisory Control And Data Acquisition)
system*

Smithfield State Correctional Institute*
Smithfield Twp, Huntingdon, Pennsylvania
*Replacement of the facility's existing 1.0 MW,
4.16 kV emergency generator that served the
prison campus with a new 1.5 MW, 4.16 kV
emergency generator. Due to the critical
nature of the facility, the design required that
temporary emergency service be maintained to
the facility throughout the project. Project also
included the upgrade of the facilities 5 kV
primary service entrance switchgear*

Greensburg State Correction Institute*
Greensburg, Pennsylvania
Campus electrical upgrade project

Education

Bachelor of Science, Electrical Engineering, 1987, University of Pittsburgh at Johnstown

Experience

H.F. Lenz Company 2001 - Present
The EADS Group, Inc. 1991 - 2001
Brinjac Kanbic & Associates 1988 - 1991

Professional Registration / Certification

Licensed Professional Engineer in Pennsylvania

Professional Achievements and Affiliations

Institute of Electrical and Electronics Engineers (IEEE)

Huntingdon State Correctional Institute*
Huntingdon, Pennsylvania
Various renovation projects

Somerset State Correctional Institute*
Somerset, Pennsylvania
Sewage treatment project

U.S. Army Reserve Center*
Charleston, West Virginia
New 30,000 sq. ft. army reserve center

West Virginia University Hospitals- Ruby
Memorial Hospital
Morgantown, West Virginia
*Electrical engineer for the feasibility study and
design services for renovation projects totaling
more than 47,000 sq.ft. and additions totaling
more than 176,000 sq.ft.*

Conemaugh Hospital
Johnstown, Pennsylvania
*Lead Electrical Engineer for a new \$40 million
addition and the upgrade of the electrical
distribution to allow for future connection to the
existing Good Samaritan Medical Center.*

Children's National Medical Center
Washington, DC
*Various renovations and additions throughout
the hospital and a new 140,000 sq.ft. addition*

SUMMARY

Mr. Davison is the Vice President of Alpha Associates, Inc. Mr. Davison joined the firm in November of 1977. He became a principal of the firm and Vice President in 1980. He has designed numerous structures, including research facilities, post offices, religious facilities, commercial and office buildings, and educational and medical facilities. The West Virginia Society of Architects has recognized Mr. Davison for his excellence in architecture with design awards for the Engineering Research Building at West Virginia University in Morgantown, WV, Wheeling College Chapel in Wheeling, WV, Morgantown High School Addition in Morgantown, WV and the KCAD Professional Office Building located in Martinsburg, WV.

PROFILE

Broad-based responsibilities in the following areas:

- Educational Architecture
- Medical Architecture
- Religious Architecture
- Quality Control
- Client Development
- New Business Development

PROFESSIONAL HIGHLIGHTS

Higher Educational Facilities:

- Agricultural Sciences Building Addition, West Virginia University; Morgantown, WV
- Prichard Hall Renovation, Fairmont State University; Fairmont, WV
- Engineering Science Building, East Wing Addition; Morgantown, WV
- Engineering Research Building; Morgantown, WV
- National Research Center for Coal and Energy, West Virginia University; Morgantown, WV
- Student Leader Housing, West Virginia University; Morgantown, WV
- Galli Laboratory, West Virginia University; Morgantown, WV

K-12 Educational Facilities:

- Washington High School, Charles Town, WV
- Westside High School; Clearfork, WV
- Wyoming East High School; New Richmond, WV
- Lewis County High School; Weston, WV
- Morgantown High School Addition/Renovation; Morgantown, WV
- Ridgedale Elementary School Addition; Morgantown, WV

Medical Facilities:

- Ruby Memorial Hospital Emergency Addition; Morgantown, WV
- Sundale Nursing Home Renovation/Addition; Morgantown, WV



Miscellaneous Architectural Design:

- Upshur County Senior Opportunity Center; Buckhannon, WV
- West Virginia Medal of Honor Recipients Memorial Plaza; Hazelton, WV
- Cumberland Valley Railroad Depot (KCAD Properties Professional Office); Martinsburg, WV
- Ronald McDonald House; Morgantown, WV
- Jenkins Ford; Buckhannon, WV

EMPLOYMENT HISTORY

PRIVATE INDUSTRY:	1977 – Current	Alpha Associates, Incorporated
	1976 – 1977	Carl G. Baker, Architects
	1974 – 1976	Architectural Firm of Laurie and Green
	1966 – 1974	Michael S. Molnar Associates

EDUCATION

UNDERGRADUATE:	Pennsylvania State University Bachelor of Architecture; 1973
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QUALIFICATIONS

LICENSE:	Registered Architect: West Virginia, Pennsylvania, Maryland, Virginia, Ohio NCARB Certified
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AFFILIATIONS

PROFESSIONAL:	American Institute of Architects West Virginia Society of Architects Council of Educational Facility Planners International American Arbitration Association Interfaith Forum on Religion, Art and Architecture
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CIVIC:	Main Street Morgantown
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AWARDS

DESIGN AWARDS:	West Virginia Society of Architects Design Awards: KCAD Professional Office Building Morgantown High School Engineering Research Building Wheeling College Chapel
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**MATTHEW S. BREAKEY, AIA,
LEED-AP**

PRINCIPAL
ARCHITECT

mbreaky@alphaaec.com

SUMMARY

Mr. Breakey has gained experience through working as a Project Manager on major capital construction projects throughout West Virginia. As a key player in the Open End Contract with West Virginia University, Mr. Breakey deals with projects from schematic design to project close out.

PROFILE

Broad-based responsibilities in the following areas:

- Architectural Design
- Construction Administration
- Contract Negotiations
- New Business Development

PROFESSIONAL HIGHLIGHTS

Higher Education Projects:

- Potomac State College, ADA Connector Link; Keyser, WV
- WVU Engineering Sciences Building East Wing Renovation/Addition; Morgantown, WV
- WVU Engineering Sciences Building 10th Floor Renovation; Morgantown, WV
- WVU Engineering Science Building Nano/Microtechnology Lab; Morgantown, WV
- WVU Alfred F. Galli Laboratory Renovations; Morgantown, WV

K-12 Education Projects:

- Washington High School, Charles Town, WV
- Pocahontas County High School Science Wing Renovation/Addition; Marlinton, WV
- Buckhannon Upshur Middle School Roof Replacement; Buckhannon, WV
- Buckhannon Upshur Middle School HVAC Upgrades; Buckhannon, WV
- Slanesville Elementary School Addition; Hampshire County, WV
- Petersburg High School Science Lab Renovation; Petersburg, WV

Miscellaneous:

- Clear Mountain Bank, Reedsville Branch; Reedsville, WV
- BC Bank Renovation/Addition, Philippi Branch; Philippi, WV
- Clear Mountain Bank, Oakland Branch; Oakland, MD
- Fairmont Federal Credit Union, Charles Pointe Branch; Bridgeport, WV
- Robert C. Byrd Health Sciences Center SRP Lab Renovation; Morgantown, WV



ARCHITECTS • ENGINEERS • SURVEYORS

**MATTHEW S. BREAKEY, AIA,
LEED-AP**

PRINCIPAL
ARCHITECT

mbreaky@alphaaec.com

- Upshur County Senior Opportunity Center Renovation and Addition; Buckhannon, WV
- Summersville Municipal Building; Summersville, WV
- Hart Field Air Rescue Fire Fighting Building; Morgantown, WV
- Bruceton Bank, Sabraton Branch; Morgantown, WV
- Camp Dawson Billeting Facilities; Kingwood, WV

EMPLOYMENT HISTORY

PRIVATE INDUSTRY:	1998 – Current	Alpha Associates, Incorporated
	1994 – 1998	West Virginia University Physical Plant Engineering and Construction
	1992 – 1994	West Virginia University Facilities Planning Management

EDUCATION

UNDERGRADUATE:	Pennsylvania State University Bachelor of Architecture; 1992 Bachelor of Science in Architecture; 1991
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QUALIFICATIONS

LICENSE:	Registered Architect: West Virginia; Maryland NCARB Certified Leadership in Energy and Environmental Design Accredited Professional
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AFFILIATIONS

PROFESSIONAL:	American Institute of Architects West Virginia Society of Architects The Council of Educational Facility Planner International U.S. Green Building Council
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CIVIC:	Main Street Morgantown Board of Directors; Past President Main Street Morgantown Design Committee; Member Chestnut Ridge Park Board; Past President
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ARCHITECTS • ENGINEERS • SURVEYORS



ALDERSON

Federal Correctional Institution

- Complete HVAC, electrical, and fire protection for conversion of training rooms into production areas

BECKLEY

U.S. Army COE, Baltimore

Army Reserve Center

- New 300-member reserve center with training building and maintenance shop

BLUEFIELD

Kee Federal Office Building and Courthouse

- Building-wide HVAC renovation study and design
- Boiler replacement
- Chiller replacement
- Second floor district courtroom
- First floor magistrate courtroom

BRIDGEPORT

The Pete Dye Golf Club

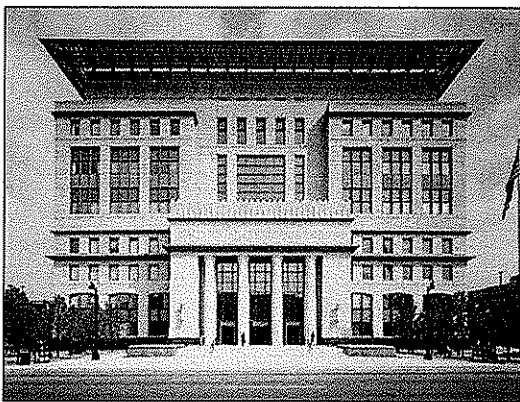
- New clubhouse

CHARLESTON

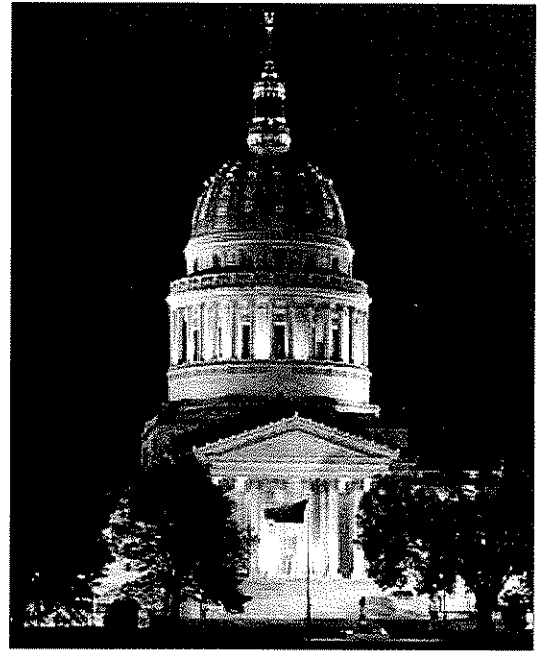
Health Sciences Center

Medical Education Building

- Evaluation, recommendations, and upgrade of HVAC system



Robert C. Byrd Courthouse. Selected mechanical system commissioning activities were performed for this new seven-story, 325,000 sq.ft. courthouse.



West Virginia State Capitol. The Capitol campus buildings comprise a total area of 1.3 million sq.ft.

McJunkin Corporate Headquarters

- New three-story, 73,500 sq.ft. glass curtain wall structure with an open office plan

Robert C. Byrd U.S. Courthouse

- Mechanical system commissioning activities
- Third party professional opinion review

University of Charleston

- New Design/Build 50,000 sq.ft. dormitory - Fast-track (design start to construction complete; less than one year)

West Virginia State Capitol

- Chilled water study
- Underground chilled water distribution (Phase I)
- 4,800-ton chiller plant

CLARKSBURG

Veterans Affairs Medical Center

- Electrical design

Waldo Hotel

- Feasibility study



EVANSDALE

West Virginia University

- Utility survey

FAIRMONT

Fairmont State College

- Campus-wide electrical distribution study, Hunt Haught Hall, Jaynes Hall, and Colebank Hall electrical distribution upgrades

GRAFTON

Grafton High School

- Addition and renovations

HARPERS FERRY

National Park Service

- Site analysis for new museum

HUNTINGTON

First Huntington National Bank

- Banking facility and data center

Huntington Federal Building

- Electrical system renovation and study and design throughout entire building
- Toilet room renovations

KINGWOOD

U.S. Army COE, Baltimore

Army Reserve Center

- New 100-member reserve center with training building and maintenance shop

MARTINSBURG

Federal Office Building and Courthouse

- Modernization of elevators
- Toilet room upgrades
- Building-wide HVAC renovation design
- Second floor judge's chamber

Martinsburg Computer Center

- Handicapped accessibility renovations

Martinsburg Medical Office Building

- New Medical Office Building

National Park Service Building

- HVAC study

U.S. Coast Guard Operations Building

- Industrial hygiene study and report
- HVAC study



Fairmont State College. H.F. Lenz Company upgraded the electrical distribution system for Hunt Haught Hall.

Veterans Affairs Medical Center

- Cafeteria/dining hall renovations

MORGANTOWN

Central Office of the State College and University System

- WVNET major maintenance and facility improvements

Jakes Run Head Start

- Heating, plumbing, and electric renovations

Monongalia County Board of Education

- Feasibility evaluations (26 buildings)

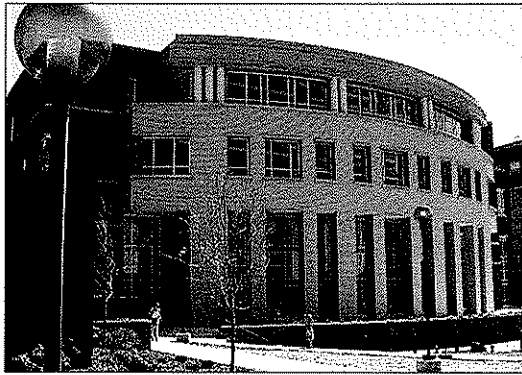
Morgantown High School

- Design of addition and renovations

Robert C. Byrd Health Sciences Center

West Virginia University

- Building evaluation and master plan
- Miscellaneous electrical and fire protection infrastructure upgrades
- Renovation of Gross Anatomy, Oral Surgery, Dental Suite, and Morgue
- Renovation of electron microscope area
- Elevator replacement
- Pathology Amphitheater renovation
- Radio and television services master plan



WVU - Charles V. Wise Jr. Library. This project features a 124,000 sq.ft. new addition and major renovations to the existing 86,000 sq.ft. library building.



Sandstone Visitor/Orientation Center. The project site is located in a remote section of West Virginia, with few public utilities available as energy sources for the project

**Ruby Memorial Hospital
West Virginia University Hospitals**

- North/Northeast Addition
- Chilled water system study
- Chilled water pump replacement
- Data center emergency generator
- Obstetrics area renovation
- Patient holding area renovation
- Elevator penthouse ventilation

Staggers Federal Office Building

- Building Evaluation Report
- Prospectus Development Study
- Parking garage structural investigation
- Extension of fire alarm system and addition of fireman's capture and recall to passenger elevators

St. John University Parish

- Master plan

U.S. Army COE, Baltimore

Army Reserve Center

- New 300-member reserve center with training building and maintenance shop

West Virginia University

- Brooks Hall Science Building - Mechanical/ electrical retrofit for code compliance (65%)
- Stansbury Hall Athletic Building - HVAC retrofit (65%)
- Charles Wise Library expansion
- Beechhurst boiler plant demolition

- Health Sciences Center boiler plant conversion study
- High-density book storage facility
- Potomac State College chiller/cooling tower replacement
- White Building East Bay Chiller Plant commissioning services
- Evansdale Campus Utility Survey
- Agricultural Sciences South Addition
- New Alumni Center
- PRT Hot Water Heating System

NEW MARTINSVILLE

PPG Industries, Inc.

Natrium Plant

- Office HVAC systems

NEW RIVER GORGE NATIONAL RIVER

SUMMERS COUNTY

National Park Park Service

Sandstone Visitor / Orientation Center

- New 12,500 sq.ft. visitor center - designed to achieve a LEED™ Platinum Rating

PARKERSBURG

Federal Office Building

- Building Evaluation Report

RAINELLE

U.S. Army COE, Baltimore

Army Reserve Center

- New 200-member reserve center with training building and maintenance shop



SNOWSHOE

Anna Jarvis Elementary School

- Addition and renovations

Snowshoe Ski Resort

- Rimfire Lodge - New 150-unit hotel/condominium complex
- Camp #4 - Residential townhome-style condominiums
- Employee housing
- Highland House - New 70-unit hotel/condominium complex
- The Seneca Building - new Residence building - Design of a 67 unit condominium building with administrative space
- Expedition Station - new Residence building - Design of a 94 unit condominium building with ski rental and retail space
- Jr. Bringham Building - new check-in facility multi-purpose building housing restaurant and lounge, offices, and ski lift ticket counter
- Shavers Center Evaluation

THURMOND

National Park Service

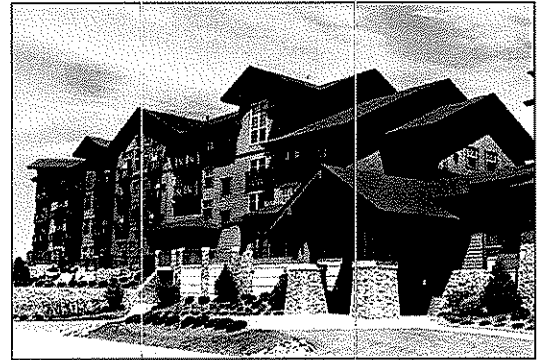
- Thurmond Row Stabilization Project

WIERTON

U.S. Army COE, Baltimore

Army Reserve Center

- New 200-member reserve center with training building and maintenance shop



Snowshoe Mountain Resort. Rimfire Lodge is the cornerstone of the new mountain top Village Center.

WHEELING

Fireworks World

- New Fireworks wholesale and distribution center

Oglebay Resort

- Building systems design

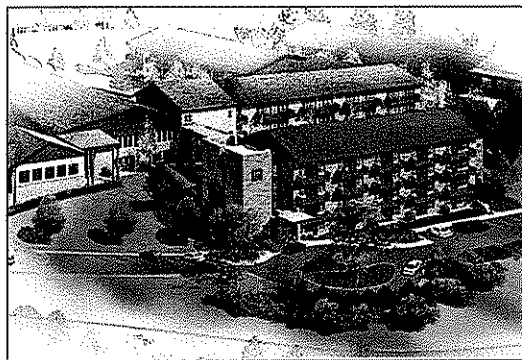
U.S. Army COE, Baltimore

Army Reserve Center

- New 150-member reserve center with training building and maintenance shop

U.S. Federal Building and Courthouse

- Boiler replacement study and design
- Study and rehabilitation of deteriorated parapet wall
- Fourth floor renovation
- \$7 million addition



Oglebay Resort. Oglebay is a unique 1650 acre resort in Wheeling, West Virginia, featuring cottages, fine dining, indoor pool, fitness room, massage therapy areas, two championship golf courses and the 30-acre Good Zoo.



Wheeling Federal Building and Courthouse.

Renovations included an historic courtroom, main lobby, and corridors. The new addition provides for separate, secure circulation paths for prisoners, and judicial staff.



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

Request for Quotation

RFQ NUMBER
CDR61423

PAGE
2

ADDRESS CORRESPONDENCE TO ATTENTION OF:
JOHN ABBOTT
304-558-2544

VENDOR

RFQ COPY
 TYPE NAME/ADDRESS HERE

SHIP TO


DENMAR CORRECTIONAL CENTER
HC-64, BOX 125
DENMAR ROAD
HILLSBORO, WV
24946

DATE PRINTED	TERMS OF SALE	SHIP VIA	F.O.B.	FREIGHT TERMS
07/27/2009				

BID OPENING DATE: **08/18/2009** BID OPENING TIME: **01:30PM**

LINE	QUANTITY	UOP	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
BID OPENING DATE:				8/18/2009	-----	
BID OPENING TIME:				1:30 PM	-----	
PLEASE PROVIDE A FAX NUMBER IN CASE IT IS NECESSARY TO CONTACT YOU REGARDING YOUR BID:						
				814-269-9301	-----	
CONTACT PERSON (PLEASE PRINT CLEARLY):						
				Thomas F. Deter, P.E., Principal	-----	
***** THIS IS THE END OF RFQ CDR61423 ***** TOTAL:						<u>N/A</u>

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE  TELEPHONE **814-269-9300** DATE **08/14/09**

TITLE **Principal** FEIN **25-1007465** ADDRESS CHANGES TO BE NOTED ABOVE

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

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:

If this is a solicitation for a public improvement construction contract, the vendor, by its signature below, affirms that it has a written plan for a drug-free workplace policy in compliance with Article 1D, Chapter 21 of the *West Virginia Code*. The vendor **must** make said affirmation with its bid submission. Further, 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. Vendor further agrees to comply with the Confidentiality Policies and Information Security Accountability Requirements, set forth in <http://www.state.wv.us/admin/purchase/privacy/noticeConfidentiality.pdf>.

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

Vendor's Name: H.F. Lenz CompanyAuthorized Signature: Date: 08/14/09

Architect and Engineering Services for the
West Virginia Division of Corrections
Upgrade Electrical Service for
Denmar Correctional Center
Hillsboro, West Virginia

Req # COR61423

Thank You
For the Opportunity
to
Submit our Qualifications
for this project!



H.F. LENZ
COMPANY