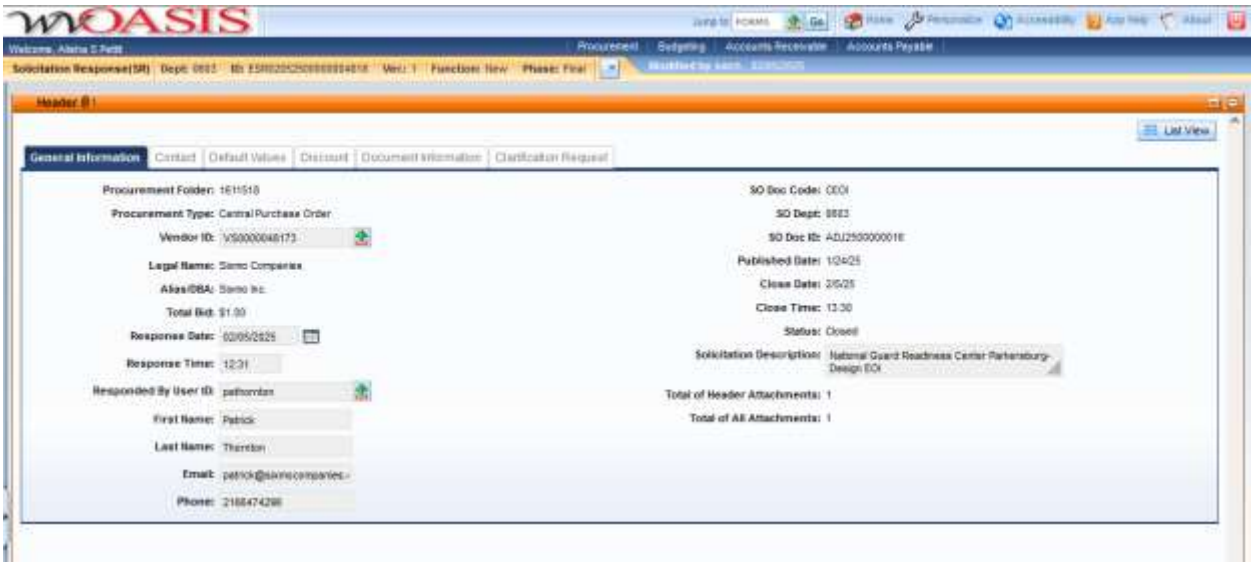
The following documentation is an electronically-submitted vendor response to an advertised solicitation from the *West Virginia Purchasing Bulletin* within the Vendor Self-Service portal at ***wvOASIS.gov***. As part of the State of West Virginia's procurement process, and to maintain the transparency of the bid-opening process, this documentation submitted online is publicly posted by the West Virginia Purchasing Division at ***WVPurchasing.gov*** with any other vendor responses to this solicitation submitted to the Purchasing Division in hard copy format.


OASIS
Procurement
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Accounts Receivable
Accounts Payable
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General Information
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Document Information
Clarification Request
Procurement Folder: 1611518
Procurement Type: Central Purchase Order
Vendor ID: VS0000046173
Legal Name: Sterio Companies
Alias/DBA: Sterio Inc
Total Bid: $1.00
Response Date: 02/05/2025
Response Time: 12:31
Responded By User ID: pathornton
First Name: Patrick
Last Name: Thornton
Email: patrick@steriocompanies.
Phone: 2168474288
SO Doc Code: CCOI
SO Dept: 0803
SO Doc Id: ADJ2500000016
Published Date: 1/24/25
Close Date: 2/5/25
Close Time: 13:30
Status: Closed
Solicitation Description: National Guard Readiness Center Parkersburg-Design EOI
Total of Header Attachments: 1
Total of All Attachments: 1

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

State of West Virginia
Solicitation Response

Proc Folder:	1611518
Solicitation Description:	National Guard Readiness Center Parkersburg-Design EOI
Proc Type:	Central Purchase Order

Solicitation Closes	Solicitation Response	Version
2025-02-05 13:30	SR 0603 ESR02052500000004818	1

VENDOR

VS0000048173
Sixmo Companies

Solicitation Number: CEOI 0603 ADJ2500000016

Total Bid: 1 **Response Date:** 2025-02-05 **Response Time:** 12:31:34

Comments:

FOR INFORMATION CONTACT THE BUYER
David H Pauline
304-558-0067
david.h.pauline@wv.gov

Vendor
Signature X **FEIN#** **DATE**

All offers subject to all terms and conditions contained in this solicitation

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
1	National Guard JFHQ Readiness Center-Parkersburg Design EOI				1.00

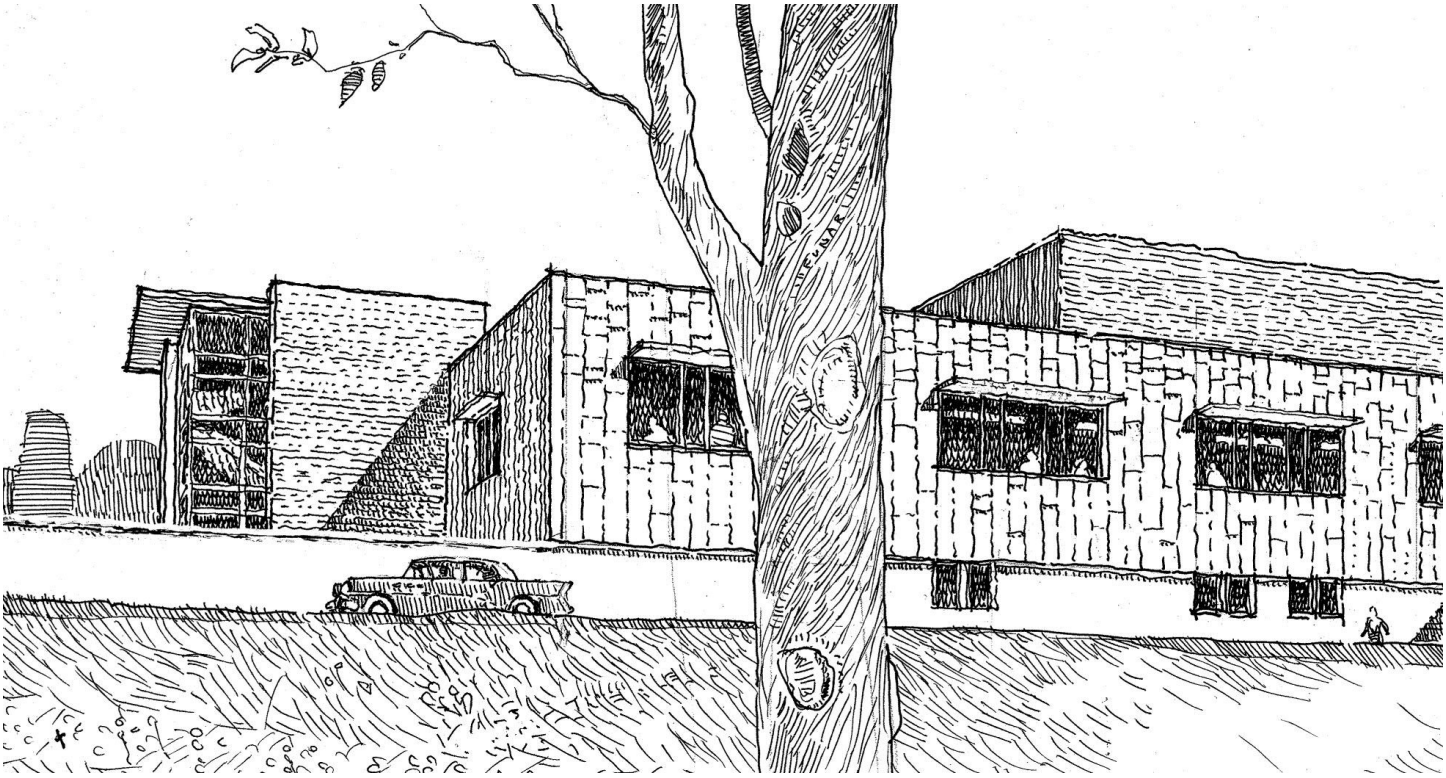
Comm Code	Manufacturer	Specification	Model #
81101508			

Commodity Line Comments:

Extended Description:

Provide professional architectural and engineering design services per the attached documentation.

DRS architects



Expression of Interest
National Guard Readiness Center - Parkersburg

Prepared for:
Department of Administration
Purchasing Division
2019 Washington Street East
Charleston, West Virginia 25305-0130
Fax: 304-558-3970

Vendor Name:	**DRS Architects**
Buyer:	David H. Pauline (david.h.pauline@wv.gov)
Solicitation No.:	CEOI 0603 ADJ2500000016
Bid Opening Date:	February 5, 2025
Bid Opening Time:	1:30 pm EST
Fax Number:	216-767-5477

Date of Issue:
February 5, 2025

February 6, 2025

Department of Administration
Purchasing Division
2019 Washington Street East
Post Office Box 50130
Charleston, West Virginia 25305-0130
Buyer: David H. Pauline
304.558.0067
david.h.pauline@wv.gov

Re: Expression Of Interest—DRS Architects
National Guard Readiness Center Parkersburg—Design EOI
Solicitation Number CEOI 0603 ADJ2500000016

Mr. Pauline,

We appreciate the opportunity to present you with this Professional Services Qualifications and Expression of Interest for the above referenced solicitation. Our team has the experience, expertise, and passion to fulfil the Agency's objectives. We have carefully studied the information provided in your Centralized Expression of Interest in an effort to develop as thorough an understanding as possible regarding your needs. That understanding is expressed in this document.

This document is being presented by DRS Architects of One Gateway Center, 17th Floor, Pittsburgh, Pennsylvania. Our firm is a part of a larger family of firms, including Triumph Services and Sixmo Architecture serving the Midwest with offices throughout Ohio, Indiana, and Pennsylvania. Our family of firms has formed a comprehensive team that includes H.F. Lenz Engineers and BrightTree Studios to most effectively execute your work. The following document expands on our teams capabilities and organization.

I will serve as your primary point of contact through the selection phase. I am available any time to discuss our qualifications and capabilities. My contact information is provided below. We look forward to any opportunity to expand on our understanding, qualifications, and expertise.

Sincerely,

Patrick E. Thornton, AIA, MPE, LEED AP
President, DRS Architects
President, Sixmo Architecture
Vice President, Triumph Services
Partner, Head of Relationships | The Sixmo Companies
patrick@sixmocompanies.com
216-767-5400 Extension 100
1101 Auburn Avenue
Cleveland, Ohio 44113

SECTION I
PROPOSED TEAM

Our Team

We have formed a comprehensive team of professionals with a great deal of direct relevant expertise with a long history of collaboration. DRS Architects will serve as the Prime Consultant. DRS Principal Jon Funari will serve as the Project Manager.

The team will consist of the following member firms:

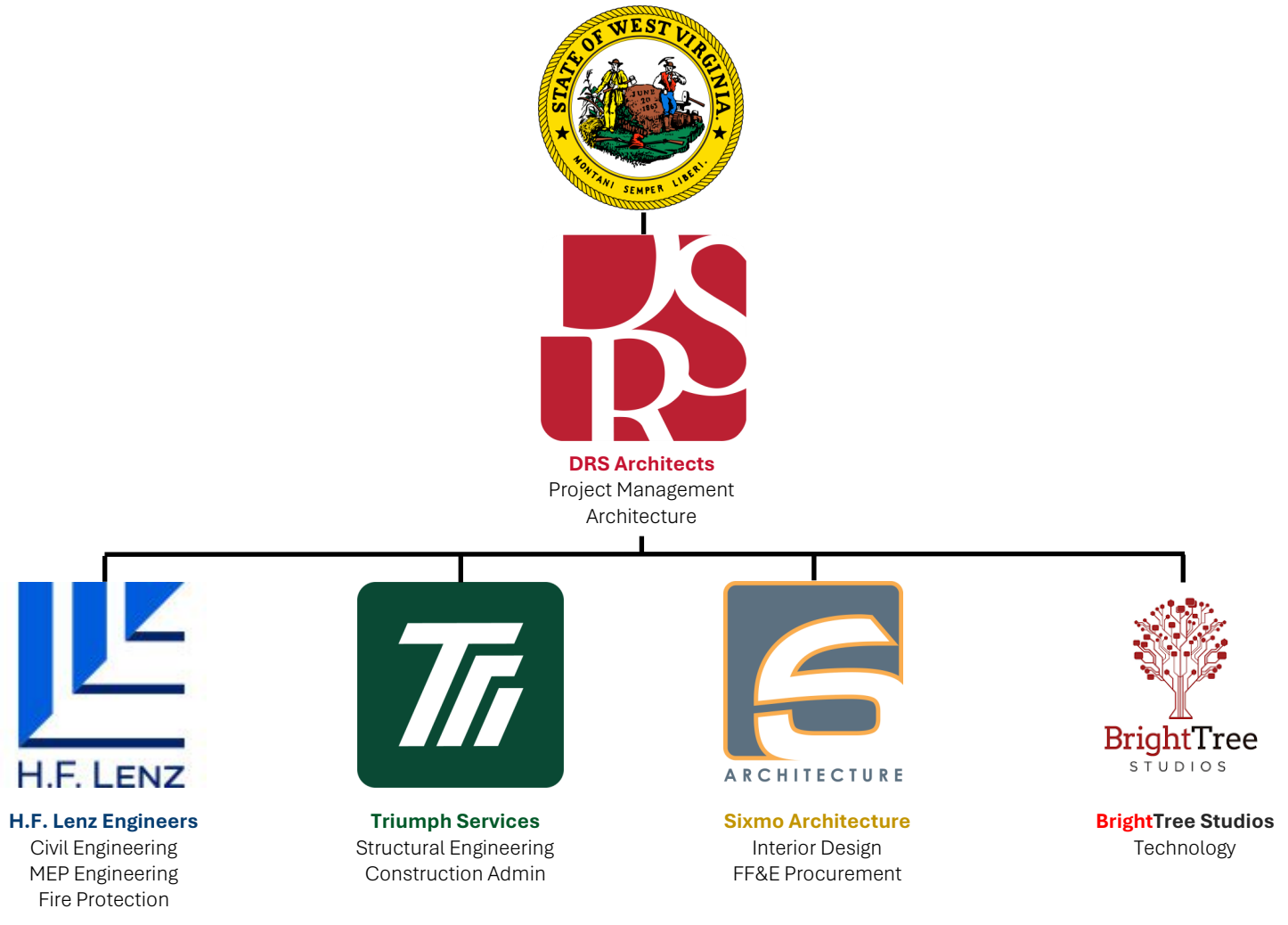
- DRS Architects, providing Project Management and Architectural Services
- H.F. Lenz Engineers, providing Civil Engineering, Mechanical/HVAC Engineering, Plumbing Engineering, Electrical Engineering, and Fire Protection Design
- Triumph Services, providing Structural Engineering
- Sixmo Architecture, providing Interior Design
- BrightTree Studios, providing Technology Design

DRS Architecture, Triumph Services, and Sixmo Architecture are all a part of the Sixmo Companies, a family of professional services firms owned exclusively by Patrick E. Thornton, AIA and Jared S. Perry, PE. This relationship results in seamless collaboration between these firms.

H.F. Lenz Engineers and DRS Architecture have a deep 30-year history of collaboration, specifically on projects similar to your own. An expression of this impressive relationship is further described later in this document.

Information regarding each member firm, as well as detailed resumes for each key individual, are included later in this section.

Below is a proposed firm organizational chart:



DRS Architects Firm Profile

Celebrating over 60 years of practice as one of the region's leading architectural, planning, and interior design firms, DRS Architects provides design services with a strong commitment to focus on our clients' needs and objectives. DRS provides architectural design, management of the design process, control of project costs and schedule, and we seek design excellence with every commission.

We are now in our sixth generation of firm leadership thanks to our acquisition in 2024 by the Sixmo Companies, strengthening our firm's position in the market and expanding on our service offerings.

Our firm leadership is:

- Patrick E. Thornton, President
- Jared S. Perry, Vice President
- Jon Funari, Principal

Some of our notable clients include:

- Pennsylvania Army National Guard
- Department of Energy, NETL
- Federal Bureau of Investigation
- Pennsylvania State Police
- Baltimore Corps of Engineers
- US Postal Service
- University of Pittsburgh
- Slippery Rock University
- Duquense University
- Starbucks
- YMCA

We provide architectural design services, including:

- Facilities Evaluation
- Code Analysis
- Master Planning
- Site Analysis
- Facility Programming
- Feasibility Studies
- Interior Design
- Cost Estimating
- Contract Documents
- Contract Administration
- Post-occupancy Services

Our clients have relied on DRS to successfully deliver the design of new buildings and renovations for the last six decades. We attribute a large measure of our success to a methodical approach to design, applying thoughtfulness and experience to every project regardless of size, while recognizing that each project is a unique combination of client, program, and circumstance. At the heart of our design approach is the philosophy that the most successful designs are the result of a back-and-forth exchange of ideas, discussion, and understanding between the participants in the process.

We view each project with an eye towards sustainability and as an opportunity to improve the well-being of people by employing environmentally responsible design strategies, even when certification is not a requirement. With our LEED Accredited Professionals, our team brings knowledgeable experience to all our projects.

Firm History

DRS Architects' long and varied history has shaped our corporate culture. Officially founded in 1959, we look back on more than six decades of successful architecture, planning, and interior design, even as we look forward to more achievements in the future.

The first iteration of DRS was the firm Mitchell and Ritchey, a partnership of James Mitchell and Dahlen Ritchey, formed in 1953 to design Pittsburgh's Mellon Square and (as associate architect) the adjacent Alcoa Headquarters tower. These projects were quickly followed by the commission to design Pittsburgh's Civic Arena.

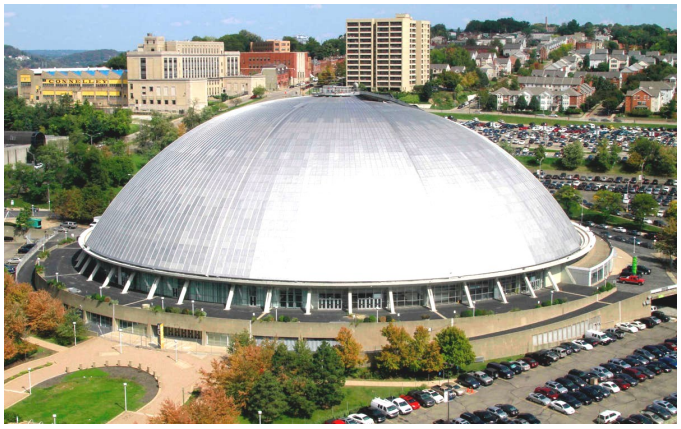
Mitchell left the partnership in 1957 to relocate out of state, and by 1959 Dahlen Ritchey had started a new practice with his good friend Russell Deeter to complete the Civic Arena project. The partnership quickly developed a reputation as an influential architecture firm in Pittsburgh with commissions to design a series of large-scale projects including Three Rivers Stadium, one of the first multi-purpose sports stadiums in the country; Allegheny Center, and multiple new higher-education buildings at the University of Pittsburgh and Carnegie Mellon University. When William Sippel was advanced to Principal from within the firm in 1964, the firm name was changed to Deeter-Ritchey-Sippel, eventually becoming DRS Architects.

Over the course of the 1960's and 1970's, the firm continued to augment its portfolio of consequential projects in the region and around the country. By the 1980's the firm had grown to 60 people, reaching it's largest size.

The ownership of DRS transitioned from the fifth generation of principals to the sixth in 2024 with its acquisition by Sixmo Companies, a multi-discipline family of firms headquartered in Marietta, Ohio. The new partnership offered DRS access to resources not prior available to a firm of its size; provided for an expanded geographic footprint; brought in-house multi-discipline capabilities; and provided an exit transition for the fifth generation of leadership.

DRS continues to be one the region's most significant architectural firms and continues to grow and evolve with the times. We look forward to a promising future, but we always respect the path that led us to our current position.

Mellon Square with the Alcoa Building in the background



The Civic Arena

Three Rivers Stadium

Design Awards

One of the ways we measure success is from the recognition of our peers. DRS Architects' work has been the recipient of numerous design and technical awards over our many years:

2018
Mellon Square Park and Alcoa Building
Timeless Award, 50 Years
AIA Pennsylvania Special Awards

2015
University of Pittsburgh, Salk Hall
Building Excellence Award for New Construction over $25M
Master Builder Association of Western Pennsylvania

2014
Market Square Place
Charter Award of Merit for the Best Block, Global Awards Program for Excellence in Urban Design
The Congress for New Urbanism

Slippery Rock University Robert M. Smith Student Center
Facility Design Award
Association of College Unions International

2013
Slippery Rock University Robert M. Smith Student Center
AIA Honor Award
Pittsburgh Chapter of the AIA

Slippery Rock University Robert M. Smith Student Center
Best Education Design
IIDA New England Interior Design Awards

Westmoreland County Transit Authority Maintenance Facility
Diamond Award Certificate
American Council of Engineering Companies of Pennsylvania

2012
BNY Mellon Center Exterior Rehabilitation
Building Excellence Award for Best Renovation Construction over $10M
Master Builder Association of Western Pennsylvania

2009
Duquense University Power Center
Bronze Design Award
10,000 Friends of Pennsylvania

2005
Advanced Chemistry Lab, Aberdeen Proving Ground
Project Development Team of the Year Worldwide
Corps of Engineers

Jon Funari, RA

Principal, DRS Architects
Project Manager

DRS Architects
One Gateway Center, 17th Floor
Pittsburgh, Pennsylvania 15222
412-325-8617
jfunari@drsarchitects.com

In over 40 years of professional practice, Jon has worked on a wide variety of project types with an emphasis on government, higher education, laboratories, and historic architecture. He has been responsible for all phases of the architectural process, managing and designing projects from programming through construction.

Jon is a principal at DRS Architects responsible for the performance of the organization and its resources as well as the quality of our services. Jon will serve as project manager for your project.

Professional Reference:

Erin Carpenter, Architect
U.S. Department of Justice
Federal Bureau of Investigation
304-625-4226
ecarpenter2@fbi.gov

Education:

Arizona State University
Master of Architecture, 1988
University of Virginia
Bachelor of Science in Architecture, 1983

Current Registrations:

Architect, State of Pennsylvania
Architect, State of West Virginia

Technical Organizations:

National Council of Architectural Registration Boards (NCARB)

Featured Representative Personal Experience:

PAANG 171st Air Refueling Wing Hanger Improvements | Coraopolis, PA
52,000 SF Secured Government Facility | WV
University of Pittsburgh, Chevron Science Center Lab Renovations | Pittsburgh, PA
Pennsylvania State Police DNA Analysis Laboratory Greensburg, PA
Department of Energy NETL Building 1 Renovation Albany, Oregon
Clarion University Stevens Hall and Moore Hall ADA Improvements | Clarion PA
Dartmouth College Life Sciences Center* Hanover, New Hampshire

*Indicates a project that was completed while under the employment of another organization

David Bostak RA

Senior Architect

DRS Architects
One Gateway Center, 17th Floor
Pittsburgh, Pennsylvania 15222
412-391-4850
dbostak@drsarchitects.com

David returned to DRS in 2024 after a brief hiatus to provide studio leadership and to bring his technical expertise to bear on our projects. He is a champion of technology in our industry, ensuring our team is leveraging its value on each and every task. As an advanced BIM user, David manages standards and education within our organization.

David is also a strong designer, developing solutions and carefully coordinating with both his in-house teammates and external consultants. His understanding of modern building systems and emerging technologies in the construction industry are evident in his well-crafted technical solutions.

Education:

- Virginia Polytechnic Institute and State University
  - Bachelor of Architecture, 1999
- Anne Arundel Community College
  - Associate in Arts, Cum Laude Honors, 1994
  - Tau Alpha Pi National Honor Society

Current Registrations:

- Architect, State of Pennsylvania
- LEED Accredited Professional

Technical Organizations:

- National Council of Architectural Registration Boards (NCARB)
- U.S. Green Building Council (USGBC)
- Autodesk University (2011/2020/2021)

Featured Representative Personal Experience:

- DGS Pennsylvania State Police DNA Facility
  - Greensburg, PA
- University of Pittsburg Salk Hall Renovations
  - Pittsburgh, PA
- DOE/NETL Building 34 Advanced Alloy Facility
  - Albany, Oregon
- DOE/NETL Building 30 Improvements
  - Albany, Oregon
- DOE/NETL Building 94 Lab Renovations
  - Pittsburgh, PA
- Clarion University Moore Hall
- Clarion University Stevens Hall
- Social Security Administration Tenant Improvements
  - Johnstown, PA
- UPMC Children's Hospital TV/Radio and Art Therapy
  - Pittsburgh, PA

Stephen G. Ponter, RA

Senior Architect

DRS Architects
One Gateway Center, 17th Floor
Pittsburgh, Pennsylvania 15222
412-391-4850
sponter@drsarchitects.com

Steve is a Registered Architect with over 30 years of experience working on projects in the healthcare, commercial, residential, higher education, and corporate sectors. He has a solid understanding of all aspects of the design and construction industry and is able to adapt and excel as new project challenges arise. Steve's work ethic and strong sense of responsibility make him an asset to have on every project team.

Education:
- University of Pittsburgh
  - Bachelor of Arts, Architectural Studies, 1986
  - Minor: Computer Science and Mathematics

Current Registrations:
- Architect, State of Pennsylvania

Technical Organizations:
- National Council of Architectural Registration Boards (NCARB)

Featured Representative Personal Experience:
- Geneva College Welcome Center
  - Beaver Falls, PA
- UPMC Mercy Hospital Envelope and HVAC Improvements | Pittsburgh, PA
- Allegheny Valley Hospital Imaging Department Renovations | Natrona Heights, PA
- Garrett Memorial Hospital MRI Office Building Addition and Renovations* | Oakland, MD
- Mountain Laurel Medical Center New 10K Office Building* | Oakland, MD
- Fifth Third Bank Branch Offices*
  - Various Locations throughout PA
- The Fairfield Townhouses* | East Liberty, PA
- Phillips Resources 10K Office Addition*
  - Cranberry, PA
- ELDI/HACP Scattered Site Housing*
  - Pittsburgh, PA
- Green Acres Scattered Site Housing*
  - Kingswood, WV
- Pleasant View & Parkwood Scattered Site Housing*
  - Oakland, MD
- River Hill Elderly Housing Development*
  - Oakland, MD

*Indicates a project that was completed while under the employment of another organization

Patrick E. Thornton, AIA

President, **DRS Architects**
Partner, Sixmo Companies

Sixmo Companies
1101 Auburn Avenue
Cleveland, Ohio 44113
216-767-5400
patrick@sixmocompanies.com

Patrick Thornton is a proud graduate of Kent State University with over thirty years of experience in the design and construction realm. Patrick has a passion for client relationship development and maintenance that he can demonstrate on a wide breadth of project types. Through a broad range of experience, he has developed problem-solving skills that can be applied to any market or client type, from residential to commercial, municipal to industrial. A drive to constantly improve as a professional inspired Patrick to become a Master Plans Examiner.

Professional Reference:
Mayor Paul Koomar
The City of Bay Village
440-899-3415
pkoomar@cityofbayvillage.com

Education:
Kent State University
Bachelor of Science in Architecture, 1996

Current Registrations:
Architect, State of Connecticut
Architect, State of Florida
Architect, State of Illinois
Architect, State of Indiana
Architect, State of Kentucky
Architect, State of Maryland
Architect, State of Michigan
Architect, State of North Carolina
Architect, State of New York
Architect, State of Ohio
Architect, State of Oregon
Architect, State of Pennsylvania
Architect, State of Wisconsin
Architect, State of West Virginia
Building Code Plans Examiner
State of West Virginia
Master Plans Examiner, International Code Council
GBCI LEED Accredited Professional

Technical Organizations:
American Institute of Architects (AIA)
International Code Council (ICC)
National Council of Architectural
Registration Boards (NCARB)
US Green Building Council (USGBC)

Featured Representative Personal Experience:
New Police Station /Firing Range | Bay Village, OH*
New Satellite Fire Stations | Stow, OH*
Municipal Service Facility | Chardon, OH*
Belmont College Burn Building | St. Clairsville, OH
Firing Range | City of Bedford Heights, OH

*Indicates a project that was completed while under the employment of another organization

Jared S. Perry, P.E.

Vice President, **DRS Architects**
Partner, Sixmo Companies

Sixmo Companies
204 Front Street
Marietta, Ohio 45750
216-767-5400
jared@sixmocompanies.com

Mr. Perry is a highly experienced licensed Professional Engineer with multi-year and multi-project experience rooted in structural engineering and project management in the public sector, heavy industry, commercial and energy markets.

His engineering focus is Structural, with experience designing foundations, structures, blast resistant buildings, braced excavations, pipe supports and bridges, platforms and rigging, and much, much more.

Jared is a founding partner of the Sixmo Companies, and lends his leadership and management skills to DRS Architects, as well as his diligent construction administration field experience to projects within his home geographic region.

Education:

- Ohio University
  - Bachelor of Science Civil Engineering, 2008

Current Registrations:

- Professional Engineer, State of Ohio
- Professional Engineer, State of North Carolina
- Professional Engineer, State of Connecticut
- Model Law Engineer, NCEES
- GBCI LEED Accredited Professional

Technical Organizations:

- NCEES
- AIST
- US Green Building Council (USGBC)

Featured Representative Personal Experience:

- Boys and Girls Club of Washington County
  - Marietta, OH
- Marietta City Schools Roof Replacements
  - Marietta, OH
- Fort Wayne Metals Blast Design
  - Fort Wayne, Indiana
- Cleveland Browns Stadium Escalator Support
  - Cleveland, Ohio
- Ohio Stadium Scoreboard Structural Engineering
  - Columbus, Ohio
- Great Trails Custom Truck Fabricators
  - Wooster, Ohio
- Coast Guard Station Renovations
  - Cleveland, OH*
- Water Department Service Garage
  - Cleveland, OH*
- WWTP Expansion | Madison, OH*
- ODOT Service Garage | Euclid, OH*
- Bus Garage | GCRTA*
- Municipal Service Garage | Moreland Hills, OH*

*Indicates a project that was completed while under the employment of another organization

H.F. Lenz Company

H.F. Lenz Company was established 1946 in its present form, under the name H.F. Lenz Company, R.E., 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— government, corporate, health care, education, and industry—is served by a team of specialists who understand the unique needs of the clients we serve. Our staff consists of 190+ individuals, including 40 Licensed Professional Engineers and 15 LEED Accredited Professionals. Our headquarters is in Johnstown, PA with branch offices in Pittsburgh and Lancaster, PA; Conneaut, OH; and Middletown, CT.

Disciplines/services offered in-house include:

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

H.F. Lenz Company has provided engineering services for over $100 million of construction for the Baltimore Corps of Engineers over the past 30 years including 7 indefinite delivery-type contracts and 11 new reserve centers, several of which were in West Virginia. Our experience also includes several recent projects for the Pennsylvania National Guard, including projects for Clearfield Readiness Center, Crane Readiness Center and New Castle Readiness Center. In addition, we have held six consecutive term contracts for Letterkenny Army Depot under which we have completed more than 100 projects requiring a variety of engineering expertise. We previously provided the engineering services for the design of three new billeting facilities for WVANG at Camp Dawson. In addition, we have extensive project experience in West Virginia, which includes over 400 projects in the past 30 years.

DRS Architects (Sixmo Companies) and H.F. Lenz Co. have collaborated on hundreds of projects over the past 30+ years, which include projects for the PA National Guard projects at Crane and New Castle Readiness Centers and a new regional maintenance building in Johnstown, PA; and projects under multiple term contracts for the U.S. Air Force - 911th Airlift Group; a confidential federal government agency in West Virginia; a nationwide term contract for NASA facilities; and 70+ projects for DOE/NETL campuses in West Virginia, Pennsylvania and Oregon.

LEED®

H.F. Lenz Company has been a member of the U.S. Green Building Council since 2000. Our experience includes 120+ projects that have attained various levels of LEED Certification, in total over 16 million SF of facilities.

Johnstown Headquarters
1407 Scalp Avenue
Johnstown, PA 15904
Phone: 814-269-9300
Fax: 814-269-9301

Pittsburgh Office
1051 Brinton Road
Pittsburgh, PA 15221
Phone: 412-371-9073

Lancaster Office
120 North Pointe Boulevard
Suite 203
Lancaster, PA 17601
Phone: 717-461-3916

Ohio Office
322 State Street
Conneaut, OH 44030
Phone: 440-599-7800
Fax: 440-599-7801

Connecticut Office
101 Centerpoint Drive
Suite 237
Middletown, CT 06457
Phone: 860-316-2124

Pennsylvania Army National Guard

Clearfield Readiness Center Rehabilitation

Clearfield, PA

Services
Mechanical, Electrical, Plumbing/Fire Protection, Civil and Structural

Square Feet
49,760

Completed
2023

Cost
$4.2 million

Reference
John S. Wert, RA
PA Department of General Services
717-346-5948
johwert@pa.gov

The Clearfield Readiness Center was constructed in 1938 and is listed on the Historical Register. It was built for Troop A, 103rd Cavalry of the Pennsylvania National Guard. The facility is 49,760 SF and covers 25-acres. The focus of this rehabilitation project was multiple code upgrades, restoration work, Force Protection (FP) enhancements, energy upgrades and general repairs.

H.F. Lenz Company provided the MEP/FP, civil, and structural engineering services for the renovation of the Clearfield Readiness Center.

The scope of work for the project included:

- New HVAC systems, which meet the Department of Defense and UFC criteria
- Upgrade the entire electrical service and distribution system to meet the new building loads
- Replace existing building lighting system with LED lighting
- New fire alarm system and mass notification system
- New standby generator to provide back-up power
- Renovate bathrooms and plumbing fixtures throughout
- Replace the sanitary, vent, hot water and cold water piping throughout the building
- Upgrade kitchen systems to meet code
- Expand bituminous concrete POV parking area by 10,000 SF
- Reconfigure front entranceway to eliminate direct vehicle path to the front entrance of the building
- Construct loading dock
- Structural engineering evaluations in select areas

Designed in compliance with United Facility Criteria (UFC) 04-010.01 DOD Minimum Antiterrorism Standards for Buildings.

Integrating historic preservation aspects into the design was a key aspect to maintain the building's eligibility for the National Historic Register.

Pennsylvania Army National Guard

New Castle Readiness Center Rehabilitation

New Castle, PA

Services
Mechanical, Electrical, Plumbing/Fire Protection, Civil and Structural

Square Feet
23,000

Completed
2018

Cost
$2.5 million

Reference
Matthew A. Dubovecky, EIT
Project Manager
PA Department of Military & Veterans Affairs
814-533-2466
c-mdubovec@pa.gov

The New Castle Readiness Center consisted of two, two-story wings of the building with a one-story Maintenance Shop/Drill Hall which connects the two. The building is masonry type construction with stone, brick, and concrete block. Outside supporting facilities include military and privately-owned vehicle parking, fencing, sidewalks, access roads, and storage buildings as well as a vehicle maintenance facility.

H.F. Lenz Company provided the MEP/FP, civil and structural engineering services for the rehabilitation of the New Castle Readiness Center.

This project was focused on the Readiness Center or the main building. The size of the existing facility was approximately 23,000 SF. The facility houses approximately 120 soldiers from the 107th Field Artillery Battalion for the Pennsylvania Army National Guard. The original building was constructed in 1938 and housed the Calvary Units, which included administrative offices, stables, and a riding hall, which is now the Drill Hall.

The rehabilitation scope of work included:

- Exterior architectural improvements
- Interior architectural improvements
- Electrical upgrades consisting of new electrical service, new distribution equipment and panelboards throughout. New lighting and receptacle layouts are also included as part of the renovation. Fire alarm system and emergency lighting will be updated throughout the building, and a connection for a future generator will be incorporated into the design.
- HVAC renovations include replacement of the steam heating system with hot water, adding air conditioning to the Administration Wing, Rear Wing, and the existing classroom which is part of the Drill Hall, toilet room and locker room exhaust upgrades, and a kitchen exhaust and make-up air system.
- The plumbing scope of work includes replacing water heaters, providing a new domestic water service and piping, updating the sanitary sewer and vent piping, modifying the natural gas service and piping to accommodate the increased loads, renovations to the toilet rooms and shower rooms throughout the building, and providing new roof drains.

Pennsylvania Army National Guard

Crane Readiness Center Rehabilitation

Pittsburgh, PA

Services
Mechanical, Electrical, Plumbing/Fire Protection, Civil and Structural

Square Feet
26,700

Completed
2015

Cost
$2.2 million

Reference
Matthew A. Dubovecky, EIT
Project Manager
PA Department of Military & Veterans Affairs
814-533-2466
c-mdubovec@pa.gov

H.F. Lenz Company provided the MEP/FP, communications and civil engineering services for the renovation of the Crane Readiness Center which houses 250 soldiers of the 128th Brigade Support Battalion, PA Army National Guard.

The existing facility was a 26,700 SF, two-story Reserve Center of permanent masonry type construction, brick and concrete block units with concrete floors, and a built-up or membrane roof system. The scope of work for the project included:

The rehabilitation scope of work included:

- HVAC & electrical system evaluation and improvements
- Bathroom rehabilitation/installation of low-flow fixtures
- American with Disabilities Act compliance upgrades
- Code compliance upgrades
- Bituminous pavement demolition/replacement/expansion
- Chain-link fencing and gates
- Exterior lighting
- Antiterrorism/force protection requirements around the perimeter of the property
- Masonry re-pointing
- Emergency generator supporting up to 35% of facility's load requirements
- Construction of a 3,000 to 5,000 SF heated storage building equipped with supply caging
- Parking lot lighting
- Roof replacement
- Elevator installation

Several rooms were remodeled for new programming needs to include architectural, electrical, IT and HVAC improvements.

This facility also houses a weapons vault which will be equipped with an electronic Entrance Security System (ESS).

Fort Indiantown Gap, Annville, PA

Services
Mechanical, Electrical, Plumbing, Fire Protection

Cost
$8.5 million

Reference
Captain Eric Knight
TPNG/DMVA
717-861-8430
c-erknight@pa.gov

Fort Indiantown Gap

Master Plan and New Auditorium

H.F. Lenz is providing engineering services for two distinct efforts associated with the Soldier Readiness Processing (SRP) program to be consolidated to Area 4 of the Ft. Indiantown Gap. The two efforts included the Area 4 Master Plan and Design services for Multipurpose Auditorium and the Medical Facility.

The project is currently underway, and intended to create a consolidated multipurpose complex for Soldier Readiness Processing (SRP) and units training in Area 4 at Fort Indiantown Gap (FITG) to allow for greater throughput/efficiency. The project includes a Master Plan for Area 4, determining locations for the new Auditorium Building, and a number of future buildings that will eventually comprise a one-stop service center for SRP (Administration, Finance, Legal, Medical, Equipment Sizing/Issue, Briefings).

In addition to the master site plan, the project will produce a new multipurpose Auditorium Building and a separate Medical Facility.

Services
Mechanical, Electrical, Plumbing, Fire Protection

Square Footage
14,400

Cost
$4 million

New Youth Challenge Building

The National Guard Youth ChalleNGe Program (NGYCP) was established in 1993 to assist young men and women between the ages of 16-18 years old who are having trouble completing traditional high school. The program is funded by the National Guard.

Multi-purpose facility to provide students an area for dining, physical fitness training, recreational sports and activities, and a large assembly area for student graduations. Additionally, there will be two two multimedia enabled classrooms for academics and extracurricular activities.

The design includes AHUs with DX cooling/gas-fired/energy recovery for the multipurpose areas, for the medical clinic and for the classroom, dining, bathrooms, and storage area. This project is currently underway and is being developed with Core and Cluster Groups.

LETTERKENNY ARMY DEPOT (LEAD), BALTIMORE DISTRICT

Indefinite Delivery Contracts

Chambersburg, PA

Services
Mechanical, Electrical, Plumbing/Fire Protection, Civil, Structural

Square Footage
Various

Completed
2013-Present

Reference
Brandon R. Kohler
717-267-8853

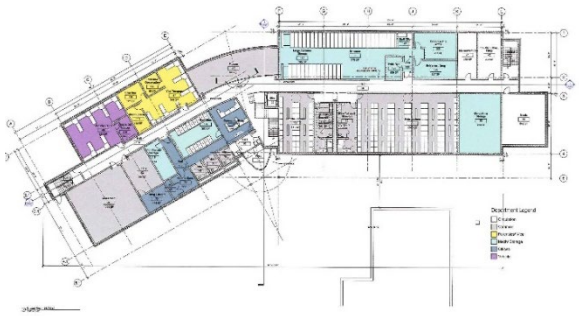
H.F. Lenz Company has provided the MEP/FP, civil and structural engineering services for over $100 million of construction for the Baltimore Corps of Engineers over the past 30 years through 6 IDIQ contracts.

Projects Completed Under the IDIQ Contracts Included:

- Building 12 - DISA/CSC Office Renovation - Renovate the existing warehouse to office space for Defense Information Systems Agency (DISA)/Computer Science Corporation (CSC)
- Building 3 - Defense Data Center - Retrofit central chilled water plant
- Building 1 - HVAC System Upgrade - Replace the existing office HVAC system including distribution and control systems
- Building 2360 - Ammunition Area Central Boiler Plant - Renovate the interior/exterior including replacement of oil-fired boilers
- Building 1 - Office and Warehouse Building - Sprinkler modifications
- Building 7 - Warehouse Building - Renovate lighting
- Building 14 - Repairs - Architectural modifications and replacement of HVAC system
- Building 521 - Addition - Civil, structural, mechanical, and electrical design of a 1,400 SF addition to the security headquarters
- Building 663 - Renovate facilities engineering building
- Building 3812 - Replace boiler/AHU
- Building 350 - Upgrade lighting, improve HVAC systems, Combat Vehicle Maintenance Shop
- Building S234 - Post Cafeteria Renovation and Expansion - Design of complete renovation and an addition to the Depot's Post Cafeteria including a conference/training area
- Master Planning Services - Working with our Master Planning consultant, an assessment of existing conditions and development of requirements analysis were prepared in accordance with AR 210-20, Real Property Master Planning for Army Installations and in the Master Planning Instructions
- Programming Documents, 1391 Preparation - Working with the Depot's Master Planner, we provided services related to the development of 1391's for various MCA projects
- Building 3 - Upgrade Fire Alarm System
- Command Flag Area Improvements - Renovate the commander's site entrance area to include walks, grass, sitting areas, flag poles, and the inclusion of the original LEAD iron gates
- Building 349 - Boiler plant modifications and roof replacement
- Building 1 - Restroom Renovations - Renovate and upgrade the restroom area including a new floor plan to accommodate ADA requirements, new plumbing fixtures, ventilation, and architectural finishes
- Child Development Center - Sanitary sewer expansion
- Phase 1 Environmental Site Assessment of Adjacent Property
- Reasonably Available Technology (RACT) Analysis - A Reasonably Available Technology RACT Analysis was conducted for the acid wash primer utilized in the painting operations to determine the feasibility of installing additional VOC emission controls. The RACT Analysis will be performed in accordance with the U.S. Environmental Protection Agency and PA DEP guidelines

- Building 397 - Renovation and Addition - Renovation to use as generator/compressor rebuild shop. Upgrade electric, fire sprinklers, lighting, and all interior and exterior finishes
- Building 321 - Demolition and Reconstruction - Demolish the existing structure and replace with a new building for Mine Resistant Ambush Protected (MRAP) process line
- Building 330 - Renovation and Upgrade - Enclose and renovate a portion of the south end of the building to provide workspace for storage operations
- Building 331 - Renovation and Upgrade - Enclose and renovate a portion of the north end of the building to provide workspace for storage operations
- Building 330 and 331 - Dock 2 Shipping and Receiving Office - Construct administrative space to coordinate shipping and receiving functions
- Building 320 - Renovation of vehicle restoration building - New finishes, lighting. HVAC, fire protection, electrical distribution, plumbing, roof, garage doors, wash bay, and emergency generator

H.F. Lenz Company has held multiple IDIQ Term Contracts for this agency as both Prime Consultant and Subconsultant.



Pennsylvania State Police

New Headquarters Facility

Greensburg, PA

Services
Mechanical, Electrical, Plumbing/Fire Protection

Square Feet
35,000

Completed
2022

Cost
$15 million

Reference
James Danner
PA State Police
Facilities Management Division
717-705-0845
jamdanner@pa.gov

Through a contract with the Pennsylvania Department of General Services, H.F. Lenz Company provided the MEP engineering for a new State Police Headquarters. The new facility consists of a new two-story steel and masonry building of nearly 35,000 SF The facility was constructed on a 13 acre site. This project included the demolition of the old headquarters building and some smaller out buildings. It also including minor modifications to the adjacent maintenance and storage garage. HFL rerouted and coordinated all new utilities on site with the exception of stormwater.

Mechanical systems included a dedicated outdoor air system with energy recovery wheel that feeds preconditioned outside air to the two primary rooftop unit variable volume systems. A small two boiler system provides reheat hot water for the terminal units and other heating-only equipment. Split system units provide conditioning to specialty areas.

A new pad mounted, 4160:208Y/120V, transformer was provided for the building. Full emergency backup was required during loss of utility power, so a 250kW generator was provided with a service entrance ATS. LED fixtures were used throughout for energy efficiency and controllability.

A 500 gpm fire pump was install to support flow from the municipal source to the fully sprinklered building.

HFL also provided power and cabling support for a new 150 foot communications tower on site

Pennsylvania Air National Guard

New Maintenance Facility

Johnstown, PA

Services
Mechanical, Electrical, Plumbing/Fire Protection, Civil, and Structural Engineering

Square Footage
26,000 - Facility Building
87,000 - Parking Area

Completed
2005

Cost
$4.7 million

Reference
Mark Austin
Director
Bureau of Facilities and Engineering
717-861-2915

The $4.7 million maintenance facility is designed to provide adequate organizational maintenance support for military vehicles and equipment supported by this Shop. The 12,700 SF maintenance area consists of eight 36' x 36' maintenance workbays of which two bays will be serviced by a 30-ton overhead crane, one warm-up bay plus 7,900 SF of administrative, personnel and work areas. The eight workbays are designed as drive through bays (36' x 72') to accommodate the largest equipment system supported by the facility. Four of the workbays have a clear height of 20' and four of the workbays have a clear height of 26'. Supporting facilities include a covered exterior wash rack, a 1,600 SF covered exterior fuel storage and dispensing system, a 1,600 SF covered fuel tanker parking area designed as a spill containment area, a 300 SF controlled waste handling facility, a 1,600 SF building for miscellaneous storage, a 300 SF flammable storage building, an 87,000 SF concrete pad for 74 military vehicle parking and POV 31 parking.

The building is constructed of a steel frame, concrete masonry walls with split faced concrete masonry veneer and a curved seamed metal roofing system. Primary heating system for the workbays is an in-slab radiant piping system with hot water provided by two gas-fired boilers. Utility services to each workbay includes a carbon monoxide exhaust system, compressed air hose reel, overhead power reel and 220v power outlets.

The site configuration/physical constraints had a major impact upon building placement/orientation. The site contains 13.56 acres in an irregular configuration. A 6.15 acre portion of the site is in the runway protection zone of the adjacent airport and is unbuildable. The remaining 7.41 acres is bisected diagonally by an area of wetlands leaving approximately 5 acres for development.

General Services Administration (GSA)

New Office Building for Federal Agency

Charleston, WV

Services
Mechanical, Electrical, Plumbing/Fire Protection

Square Feet
19,427

Completed
2010

Cost
$4.5 million

Accreditations
LEED Silver Certification

Reference
Nick Colasante
Glenmark Holding, LLC
304-599-3369

H.F. Lenz Company provided the engineering services for the design a of a new, two-story 19,427 SF office building in Charleston, West Virginia to house an agency of the intelligence community offices. The facility includes forensic evidence labs, investigators' work and technology spaces, and service bays to modify surveillance vehicles.

The building was designed with energy efficient systems and sustainable design criteria including water conservation, use of regionally manufactured materials, increased ventilation, use of renewable energy sources, and a pre-occupancy construction indoor air quality management plan. The project goal was to meet the requirements of LEED Silver (minimum) and attain an ENERGY STAR rating of 75 or above.

Project features include:

- Variable air volume HVAC system consisting of gas-fired rooftop air-handling units with DX cooling and energy recovery, supplemental cooling for specialty areas such as server rooms and areas with concentrated high heat loads.
- A separate air-handling unit for the mailroom area will minimize any airborne threats. Another HVAC security measure includes the strategic placement of outdoor air intakes to minimize the risk of contaminants being entrained into the building through the outdoor air intake
- An electrical distribution system that will supply 10 watts/SF of power to the building, as well as an exterior 50kw standby/emergency generator that will serve the backup power needs
- A complete data/communications system which includes separate telecommunications closets for the internal system servers that will be used to meet the function of the building. The system features include category 6A horizontal cabling, incoming optical fiber cabling, wire racks and bridal rings for wire management
- A fire alarm system with a voice/alarm communication system
- An automatic sprinkler system designed to NFPA requirements
- The design of a wet lab area that includes a separate fume hood exhaust system
- Garage bays that are used to modify/examine vehicles
- Building commissioning

NATIONAL ENERGY TECHNOLOGY LABORATORY

Building 1 - Phased Renovation of Four-Story Building

Morgantown, WV

Services
Mechanical, Electrical, Plumbing and Fire Protection

Square Footage
51,000

Completed
2017

Cost
$3,700,000 - Phase 1
$5,544,000 - Phase 2

Reference
Mr. Allen K. Lichvar
U.S. Department of Energy
National Energy Technology Laboratory
304-285-4042
allen.lichvar@netl.doe.gov

H.F. Lenz Company provided multi-discipline engineering services through our second consecutive Indefinite Delivery, Indefinite Quantity (IDIQ) for NETL sites in Bruceton, PA, Morgantown, WV, and Albany, OR. In total, NETL's facilities include 81 buildings and 14 major research facilities on nearly 200 acres. We have completed more than 70 work orders including a Facilities Assessment Project (71 Buildings) on the Pittsburgh and Morgantown Campuses and various building systems upgrades on all three campuses.

This project involved the phased renovations of the four-story, 51,600 SF Building 1 located in Morgantown, WV. The government fully occupied those portions of the building not under renovation. The building alterations incorporated the High-Performance Sustainable Building Guidance Principles.

Constructed in 1952 and renovated in 1992, the building accommodates a variety of office functions. With changes in usage and consolidation of services, the floor layouts were reconfigured into private offices and open office cubicles utilizing an inventory of existing open office system components. This modification increased the corridor width, which provides a more open public circulation flow both visually and physically, reducing the "tunnel effect" of long corridors.

Mechanical system upgrades included replacement of four air handling units with modular, double wall, indoor air handling units which include a full airside economizer, two steam-to-hot water shell and tube heat exchangers, and replacement of building chilled water piping.

Plumbing changes include replacement of all vertical water, waste and vent piping. Rainwater harvesting was analyzed but was not incorporated due to the high cost of the system.

The existing main switchgear distribution was replaced. Existing lighting fixtures, previously replaced under an energy management plan, were removed, stored, inventoried, relamped, and reinstalled. Energy management features occupancy sensors, daylighting and time clock control.

Thomas F. Deter, P.E., LEED AP

Principal-in-Charge

Mr. Deter has over 37 years of experience and 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 has extensive experience in the design of building systems for both new buildings and building retrofits for mixed-use developments, educational, health care, commercial, government, industrial, residential, and utility related facilities. Mr. Deter has extensive Department of Defense (DOD) project experience, and a long history of projects located in West Virginia.

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 Registration / Certification

Licensed Professional Engineer in PA, AR, ID, IL, IN, MD, NE, NJ, NC, OH, OK, OR, SD, VA and WV • LEED Accredited Professional

Professional Affiliations

NSPE/PSPE • U.S. Green Building Council

References

Stephen Mariner, P.E.
Project Manager
NASA Wallops Flight Facility
Route 175, 175 Chincoteague Rd
Building J-20
Wallops Island, VA 23337
757-824-1363
stephen.a.mariner@nasa.gov

Allen Lichvar
Supervisory General Engineer
National Technology Laboratory
3610 Collins Ferry Road
Morgantown, WV 26507
304-285-4042
Allen.lichvar@netl.dow.gov

Project Experience

West Virginia Army National Guard Facilities
- Weirton - 16,000 SF D/B Aviation Center
- Wheeling - 24,000 SF D/B Reserve Center
- Camp Dawson - Three new billeting facilities

Pennsylvania Army National Guard Facilities
- Crane - Renovation of 26,700 SF reserve center
- New Castle - Renovation of 23,000 SF Readiness Center
- Clearfield - Renovation of 49,760 SF Readiness Center
- Johnstown - New 23,560 SF Maintenance Facility
- Fort Indiantown Gap - New 11,000 SF Multi-purpose Building for the ChalleNGe project
- Fort Indiantown Gap - Master plan and design for a new auditorium

Maryland Army National Guard, Grantsville, MD
- New 15,300 SF training facility and maintenance shop

USACE, Aviation Center, Johnstown, PA
- New 120,000 SF multi-building reserve center

Letterkenny Army Depot, Baltimore District, Chambersburg, PA
- Seven consecutive Indefinite Delivery Contracts

Pennsylvania State Police, Greensburg, PA
- New 31,000 SF State Police Headquarters building

171st Air Refueling Wing, Pennsylvania Air National Guard, Pittsburgh International Airport, Pittsburg, PA
- Repairs to the water distribution system

911th Airlift Wing, U.S. Air Force Reserve Command, Coraopolis, PA
- Refueling station; renovations to Hangar Building 129; Repairs and alterations to the Base Exchange Building; new vehicle wash addition

Air Traffic Control Squadron, Johnstown Cambria County Airport, Johnstown, PA
- Air Traffic Control Building water infiltration issues study and correction

Education
Bachelor of Science, Electrical Engineering Technology, 2006, University of Pittsburgh at Johnstown

Experience
H.F. Lenz Company - 2006 - present

Professional Registration / Certification
Licensed Professional Engineer in PA, CA, IN, NC, NV, NY, MD, OH, OK, SD, VA and WV

Completion of PTW Software and Power Systems Application Courses through IEEE • Completion of Battery Technology and Battery Monitoring through Liebert Corporation

References
Ron Lincoski
Director of Facilities
Penn West University
250 University Avenue
California, PA 15419
724-938-5356
lincoski@pennwest.edu

Todd Sanders
Project Manager
NASA Goddard Space Flight Center
8800 Greenbelt Road
Greenbelt, MD 20771
301-286-9199
todd.g.sanders@nasa.gov

Brian D. Schmidt, P.E.
Project Engineer/Electrical Engineer

Mr. Schmidt has extensive experience in electrical system modeling and computer calculations (SKM Power Tools) for producing engineering drawings for various types of higher educational, commercial, institutional, and governmental facilities. His experience in the electrical field includes the design of generators, emergency lighting and power distribution systems; exterior high-voltage underground and overhead pole line distribution systems; medium-voltage switchgear building interior and exterior electrical power distribution systems; lightning protection systems; theatrical stage dimming systems; computer room grounding systems and signal reference grid systems; uninterruptible power supply systems; paralleling and synchronizing switchgear; interior and exterior building lighting systems; site utilities; grounding systems; and signal, communication, security, and fire alarm systems. Mr. Schmidt also has attended a 5 day SKM system analysis training course conducted by the SKM System Analysis Tech Support Group.

Project Experience

Camp Dawson, U.S. Army National Guard, Kingwood, WV
- Three new billeting facilities designed to resemble small, upscale hotels including design of the heating, cooling, ventilation, lighting, power, fire alarm, telecommunications, fire protection, plumbing, and natural gas service

Letterkenny Army Depot - Baltimore District, Chambersburg, PA
- Building 320 upgrades and renovations

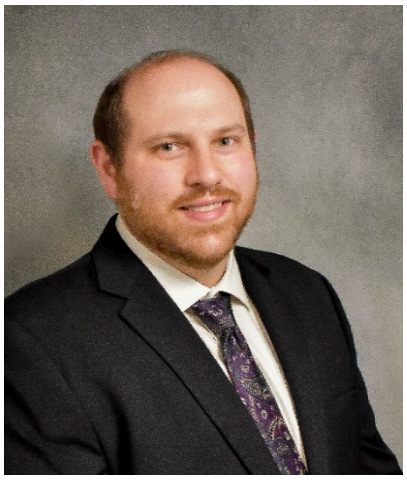
DOE National Energy Technology Lab, Morgantown, WV
- Primary Power Distribution Switchgear Upgrade: Specified reconditioning requirements for six vacuum breakers with electronic SEL relays; replaced ten electro-mechanical and six aged electronic relays, and provided medium voltage relay settings

U.S. Army Corps of Engineers - New Cumberland Army Depot, New Cumberland, PA
- Developed a project definition for a proposed three-story billeting facility providing civil, mechanical, plumbing, fire protection, and electrical engineering services for the facility

911 Airlift Wing, U.S. Air Force, Greater Pittsburgh International Airport, Coraopolis, PA
- Visiting Offices Quarters, Building 206, renovations

Fort Detrick, U.S. Army Corps of Engineers, Frederick, MD
- Improvements and modifications to Buildings 1430, 1545, and 1546

PA Army National Guard Readiness Center, New Castle, PA
- Renovation to 23,000 SF readiness center



Justin S. Kalanish, P.E.

Mechanical Engineer

Mr. Kalanish has 17 years of experience in the design of HVAC systems for institutional and governmental clients. His responsibilities include code compliance verification, schematic layout, calculations, equipment selection, coordination, life cycle cost analyses, cost estimating and energy modeling. His experience includes the design of mechanical systems for office buildings and educational facilities. His project experience includes:

Education

Bachelor of Science, Mechanical Engineering Technology, 2007, University of Pittsburgh at Johnstown

Experience

H.F. Lenz Company 2007 – Present

Professional Registration / Certification

Licensed Professional Engineer in PA

Reference

Christopher L. Conroy, PE
Associate Director MEP
Campus Design and Facility Development
Fax: 412-268-6976
cconroy@andrew.cmu.edu

Craig Washington
Sr. Project Manager | Design & Construction
University of Pennsylvania
445-232-0610
craigwas@upenn.edu

Project Experience

Clearfield Readiness Center, Clearfield, PA
- Renovations and additions to a 49,760 SF, 25-acres Army National Guard Readiness Center

Pennsylvania State Police, Greensburg, PA
- New 31,000 SF State Police Headquarters building with forensics unit and various types of lab spaces

Pennsylvania National Guard, Annville, PA
- Renovations to Ft. Indiantown Gap 14,400 SF, multi-purpose Youth Challenge Center facility

State Correctional Institute (SCI), Various
- SCI Huntingdon, Huntingdon, PA - Electrical power distribution upgrades of the four original cell blocks, plus the two newer cell blocks in the maximum security correctional institution
- SCI Camphill, Camp Hill, PA - Replacement of steam lines and repairs to steam tunnel - current DGS project

New Bucks County Justice Center, Doylestown, PA
- Lower Bucks Government Service study and design for renovations/HVAC upgrades and multiple county buildings - Current Project
- New 265,000 SF facility designed to attain LEED Silver

PennDOT Term Contract - Statewide, Pennsylvania
- Various projects including several maintenance facilities, welcome centers and stockpile facilities

Pennsylvania National Guard Facility, Johnstown, PA
- New 23,560 SF office and maintenance facility with eight vehicle maintenance bays

National Energy Technology Laboratory (NETL), Various Locations
- Indefinite Delivery-Indefinite Quantity (IDIQ) contract for NETL facilities in Morgantown, WV, Bruceton, PA, and Albany, OR - Over 100 projects complete

Buchanan County Courthouse and Government Center, Buchanan County, VA
- New 40,000 SF D/B facility and historic clock tower

Reading City Hall, Reading, PA
- Study and design for HVAC Upgrades - Current Project

William A. Minahan, P.E.

Mechanical Engineer

Mr. Minahan has over 14 years' experience in the design of HVAC, plumbing, and fire protection systems. His responsibilities as Project Engineer include code compliance verification, schematic layout, calculations, equipment selection, control system selection, specification writing, coordination, life cycle cost analyses, cost estimating, as well as coordination with the client, the architect, regulatory agencies, and the engineering staff; project scheduling; and other project management functions.

Education

Bachelor of Science in Mechanical Engineering Technology, 2010, The University of Pittsburgh

Experience

H.F. Lenz Company 2010 – Present

Professional Registration / Certification

Licensed Professional Engineer in Pennsylvania

Professional Affiliations

ASHRAE – Johnstown, PA Chapter

References

Christopher L. Conroy, PE, CEM, LEED APBD+C
Associate Director MEP
Carnegie Mellon University
Campus Design and Facility Development
5000 Forbes Avenue
Pittsburgh, PA 15213
412-268-3879
cconroy@andrew.cmu.edu

Ryan Shank, AIA
Design Project Manager | Capitol and Historic Division
DGS Capital Programs |Bureau of Design Management Arsenal Bldg.
1800 Herr St. Harrisburg PA 17125
717-783-2593
ryshank@pa.gov

Project Experience

Clearfield Readiness Center, Clearfield, PA

- Renovations and additions to a 49,760 SF, 25-acres Army National Guard Readiness Center

Pennsylvania State Police, Greensburg, PA

- New 31,000 SF State Police Headquarters building with forensics unit and various types of lab spaces

Loysville Youth Development Center, Perry County, PA

- Renovation to the 9,012 SF Zimmerman-Bingman (ZB) Cottage - Current DGS project

National Energy Technology Laboratory (NETL), Various Locations

- Indefinite Delivery-Indefinite Quantity (IDIQ) contract for NETL facilities in Morgantown, WV, Bruceton, PA, and Albany, OR - Over 100 projects complete

Hertz Corporation, Various Locations

- Dulles International Airport - Conversion of a bus wash bay into a vehicle maintenance bay
- Austin-Bergstrom International Airport - Conversion of a bus wash bay to vehicle maintenance bay
- Minneapolis St. Paul International Airport - Terminal 2 - Gold board replacement and gold booth door upgrade
- Palm Beach, Florida - Palm Beach International airport facility refresh
- Roanoke, Virginia - Roanoke-Blacksburg Regional Airport QTA facility restart
- Charlotte, North Carolina - New security booth installation for the drive off-airport maintenance/overflow site
- Salem, Oregon - Hertz Local Edition (HLE) office fit-out and interior renovation to the retail space
- Edmond, Oklahoma - Hertz HLE interior renovations
- Huntington Station, New York - Renovations to off-airport location

Gregory D. Rummel, CPD

Plumbing/Fire Protection Designer

Mr. Rummel has designed complete plumbing and fire protection systems for parks and recreational facilities, colleges, schools, office buildings, industrial facilities, and military installations. He is fully knowledgeable of NFPA codes and is experienced in the design of wet, dry, preaction, FM200, and deluge fire protection systems. He is responsible for plumbing and sprinkler system design, layout, and calculations; selection and sizing of equipment; cost estimates; and site survey work. Mr. Rummel supervises drafting personnel; 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.

Education

Bachelor of Science, Mechanical Engineering Technology, 2000, Point Park College

Associate in Specialized Technology 1984, Architectural Drafting and Construction with CAD Technology, Triangle Institute of Technology

Experience

H.F. Lenz Company 1989- Present

Newport News Ship Building 1984-1989

Professional Registration / Certification

Certified in Plumbing Design, ASPE

References

Todd Sanders
Project Manager
NASA Goddard Space Flight Center
8800 Greenbelt Road
Greenbelt, MD 20771
301-286-9199
todd.g.sanders@nasa.gov

Allen Lichvar
Supervisory General Engineer
National Technology Laboratory
3610 Collins Ferry Road
Morgantown, WV 26507
304-285-4042
Allen.lichvar@netl.dow.gov

Project Experience

New Castle Readiness Center, New Castle, PA
- Renovations and additions to a 23,000 SF Army National Guard Readiness Center

Crane Readiness Center, Pittsburgh, PA
- Renovations and additions to a 26,700 SF Army National Guard Readiness Center

Clearfield Readiness Center, Clearfield, PA
- Renovations and additions to a 49,760 SF, 25-acres Army National Guard Readiness Center

Pennsylvania National Guard Facility, Johnstown, PA
- New 23,560 SF office and maintenance facility with eight vehicle maintenance bays

Pennsylvania National Guard, Annville, PA
- Ft. Indiantown Gap masterplan and new auditorium

Letterkenny Army Depot, Baltimore District, Chambersburg, PA
- Seven consecutive Indefinite Delivery Contracts

Pennsylvania State Police, Greensburg, PA
- New 31,000 SF State Police Headquarters building with forensics unit and various types of lab spaces

National Energy Technology Laboratory (NETL), Various Locations
- Indefinite Delivery-Indefinite Quantity (IDIQ) contract for NETL facilities in Morgantown, WV, Bruceton, PA, and Albany, OR - Over 100 projects complete

911th Airlift Wing, U.S. Air Force Reserve Command, Coraopolis, PA
- Refueling station; renovations to Hangar Building 129; Repairs and alterations to the Base Exchange Building; new vehicle wash addition

NASA Goddard Space Flight Center, Greenbelt, MD
- Address arc flash and electrical safety deficiencies at the NASA Greenbelt campus

Education
Bachelor of Science, Civil Engineering Technology, 1998, University of Pittsburgh at Johnstown

Experience
H.F. Lenz Company 1998 – Present

Professional Registration / Certification
Licensed Professional Engineer in PA, CO, FL, GA, IN, MD, NV, OR, OK, TX, VA, and WV

Keith A. Gindlesperger, P.E.
Principal/Lead Civil Engineer

Mr. Gindlesperger is a Vice President of H.F. Lenz Company and leads our Civil Engineering Team. He has over 27 years' extensive experience in civil engineering, site planning and design for military bases, DOD projects and secure facilities. He is responsible for interfacing with the Client to review the program, budget, contractual matters, establish responsibilities and allocate personnel and firm resources. His responsibilities also include overseeing site design, site utilities, parking and traffic circulation, roadway design, stormwater management, erosion and sedimentation control and permitting.

Project Experience

Clearfield Readiness Center, Clearfield, PA
- Renovations and additions to a 49,760 SF, 25-acres Readiness Center

Letterkenny Army Depot - Baltimore District, Chambersburg, PA
- Seven consecutive IDIQ contracts at Letterkenny Army Depot for Civil Engineering throughout the base: Integrated Contingency Plan; Master Planning Services; LEAD/LEMC New Rocket Motor Destruction Facility & Site Design

911th Airlift Wing, U.S. Air Force Reserve, Greater Pittsburgh International Airport - Coraopolis, PA
- Various renovations and new construction under two term contracts

SAIA Motor Freight Line LLC, Various States
- Principal-in-Charge of multi-discipline engineering services for new and renovated trucking terminals across the U.S. including recent project at Parkersburg, West Virginia

Commerce Crossing Industrial Park, Westmoreland County, PA
- New 256-acre industrial park including design of the infrastructure and creation of pad-ready sites to support large industrial type structures

Shepherd University, Shepherdstown, WV
- Civil/site design for East Campus Improvements, phase I demolition/remediation and East Loop and Gateway Arch project; N. King Street streetscape improvements

West Virginia University, Morgantown, WV
- Site design for the new Ag Sciences Building II; included site utilities, grading and drainage plan, stormwater management plan, erosion and sedimentation control plan, WV DEP Permitting, Morgantown Utility Board Approvals

United Parcel Service, Parkersburg, WV
- Evaluation and analysis of the existing pavement structure and design of a pavement management plan for the facility. Provided construction documents and construction observation services

HFL/DRS Collaborations

Currently in its 78th year, the **H.F. Lenz Company** is a 190+ member, multi-discipline engineering firm offering a full range of engineering services for building systems, infrastructure, and industry. Their 40 professional engineers are registered in all 50 states and the District of Columbia. The team that will serve on this contract is comprised of dedicated, multi-discipline individuals, many of whom have been working together for well over a decade. Together they have taken on the challenges of numerous high profile, complex projects and have derived workable, cost-effective solutions that have met the objectives of the client. Their experience also includes the DGS Clearfield Readiness Center, DGS Crane Readiness Center Rehabilitation, the DGS New Castle Readiness Center Rehabilitation and two current projects at Fort Indiantown Gap. In addition, they have held six consecutive term contracts for Letterkenny Army Depot under which they have completed more than 100 projects requiring a variety of engineering expertise.

DRS Architects, Inc., a Small Business, has been offering architectural, planning and interior design services for over 60 years.

DRS Architects and H.F. Lenz Co. have worked together for over the past 30+ years and have collaborated on hundreds of projects. Many have included the collaborations for PA National Guard maintenance buildings renovations, previous and current work for DGS Crane Readiness Center and DGS New Castle Readiness Center, PA State Police new headquarters expansion, and U.S. Air Force - 911th Airlift Group.

Latest projects with DRS

National Aeronautics & Space Administration (NASA), IDIQ Contract for Multiple-Discipline A/E Services - Various Locations - Ongoing

- NASA Wallops Flight Facility: Restoration of Main Base Electrical Infrastructure - Wallops Island, VA - $12.3 million
- NASA Goddard Space Flight Center: I&T Complex HVAC - Greenbelt, MD - $900,000
- NASA Goddard Space Flight Center: Electrical Safety Upgrades - Greenbelt, MD - $3.2 million
- NASA Glenn Research Center: Building 37 Convert Motors for Power Factor Correction - Cleveland, OH

NETL Building 34 PA State Police, New DNA Lab - Completed 2021 - $22.5 million

Confidential Federal Government agency, Module Entrance Security Enhancements - Completed 2023

DGS Torrance State Hospital, Electrical Infrastructure Upgrades - Completed 2021 - $10 million

DRS Architects Project Experience

National Energy Technology Laboratory (NETL), Various Locations

- More than 100 work orders
- Albany - Building 2 Mothballing Cost Study
- Building 1 second floor renovation
- Albany - Building 28; 10,250 SF HVAC upgrades
- Albany - Building 34 Advanced Alloy Development Facility
- Albany - Building 17 Central 2,550 SF High Bay Area Renovation
- 1,568 SF Geological/ Environmental System Visualization Center Siting Study
- Albany - Building 28 Electrical Vault Upgrades
- Albany - Building 17; 4,860 SF East Wing Renovation
- Morgantown - Building 13 HVAC replacement
- Morgantown - Corrections of HVAC Deficiencies for Building 17, Lab 25 & 26
- Morgantown - Building 26 ground Floor Renovation Design
- Morgantown - Building 3 Exterior Insulation Finishing System (EIFS) Repair
- Pittsburgh - Building 920 remodel for Security Offices
- Pittsburgh - Building 84 Sumer Boiler Replacement
- Pittsburgh - Building 94 Switchgear & Motor Control Center Replacement
- Pittsburgh - Building 13 and 17 HVAC Commissioning
- Pittsburgh - Potable & Fire Water Line Replacement 900 Plateau & to Building 167 project
- Lick Run concrete weir demolition
- Forklift and Cart recharging station
- Pittsburgh - Building 83/922 MCC Replacement

Social Security Administration, Johnstown, Pennsylvania

- Tenant Improvements
- Feasibility Study for the Elevator Addition

Mellon Client Service Center, Pittsburgh, Pennsylvania
- 8th Floor Treasury Clg Rev, 8th Floor Telecom Design
- 11th Floor Clg Revs
- 11th Floor Telecom Design
- 12th Floor FX Cash
- 9th Floor Cyber Fusion
- 2nd Floor CBRE Property Management
- 9th Floor Government Loans
- 9th floor GDS
- 6th Floor revisions - Document Custody

Bank of New York Mellon Center, Pittsburgh, Pennsylvania
- Boiler Plant Study
- 4th Floor Markets Group Consolidation
- 8th Bridgewater Expansion
- 11th Floor Conference room
- 30th Floor Human Resources
- 24th floor Improvements Risk
- 26th floor Improvements
- B Level Desktop Technology
- 27th floor CSD group Improvements
- 20th Floor Library/Training
- 20th Floor Asset Management Audit
- A/V Support
- 525 William Penn Place - 5th Floor Box Storage
- 525 William Penn Place - 7th Floor Box Storage

Three Mellon Center, Pittsburgh, Pennsylvania
- 525 William Penn Place - Leech Tishman 28th & 29th floor renovation
- 6th floor LEED
- 16th Floor Conference Center
- 16th Floor Bankers Corner
- 36th, 35th, 34th Core Restrooms
- 31st Floor Walton & Stephaich

One Mellon Center, Pittsburgh, Pennsylvania
- 20th Floor Glimcher Group
- Lobby Lighting
- 49th Floor ADA Satellite Restroom Rm
- 26th Floor Restroom Rm Upgrade
- 8th Floor CTS/IST
- 14th Floor Client Service Delivery (CSD)
- 3rd Floor Conference Center revised
- 3rd Floor Telepresence Room
- 8th Floor Star Infill
- 3rd Floor Finance/ Corporate Sourcing
- 18th Floor Restroom Rm Upgrade
- 18th Floor CSD
- 8th Floor CSD
- 39th Floor Restroom Rm Upgrade
- 39th Floor Wealth Management
- 40th Floor Asset Services
- 52nd Floor Restroom Rm Upgrade
- 15th Floor Restroom Improvements – Tower
- 15th Floor Asset Services

- 52nd Floor Corp Affairs/Mrktg
- 12th Floor Restroom Rm Upgrade
- 3rd Floor Conferencing Center
- 3rd Floor
- Fox Rothschild 20 & 25 Peer Review & Structural
- Fox Rothschild 20 & 25 Core Improvements
- 15th Floor Bustle Men's & Women's Toilet Rm Upgrade
- 16th Floor Bustle Toilet Rm Upgrade
- 34th Floor Commissioning
- 34th Floor - LEED Design
- 19th Floor Expansion
- 20th Floor Wellness Center
- 8th Floor Toilet Rm Upgrades
- 5th Floor Toilet Rm Upgrade
- 3rd Floor Toilet Rm Upgrade
- 33rd Floor Finance
- 7th Floor LEED Commissioning
- 7th Floor TSG
- 3rd Floor Finance
- "A" Level Showers - Pittsburgh Commuter Changing Facility

Pennsylvania State Police, Greensburg, Pennsylvania
- New 50,000 SF DNA Lab

Pennsylvania National Guard, Pittsburgh and New Castle, Pennsylvania
- 26,700 SF renovation for the Crane Readiness Center
- 23,000 SF new Castle Readiness Center

Pennsylvania Air National Guard, Cambria and Allegheny County, Pennsylvania
- Repair composite support facility B258 John P. Murtha
- Repair Storm Water Infrastructure
- Base Repair Heating Systems H301 / H302
- Repair Water Distribution System
- Fire Protection System repair
- Concrete Apron repairs - NPDES Permit

Aberdeen Proving Grounds, Maryland
- Headquarter Building Study
- Air intakes at a minimum 3 stories above grade
- Mission critical system redundancy
- Protection of required exterior equipment
- Mail room - 100% exhaust system
- Utility service protection – remote readers
- SCIF security
- Site and interior lighting for cameras
- Cameras, door strikes, card readers, and other detection equipment
- UPS backup

USPS, Johnstown, Pennsylvania
- Processing and Distribution Facility
- 70,323 SF HVAC Control Replacement

USPS, New Castle, Pennsylvania
- 10,000 SF Annex Facility Renovation

YMCA, Pittsburgh, Pennsylvania

- New $9 million state-of-the-art facility LEED Gold Commissioning

84 Lumber, Johnstown, PA
- Memorial and Art Studio

Slippery Rock University, Slippery Rock, Pennsylvania
- Morrow Field House Study
- North Hall Interior Renovations

Allegheny Health Network (AHN), Pittsburgh, Pennsylvania
- Waterworks Outpatient Center
  - New 16,000 SF Outpatient and Imagining Center
  - ADA Ramp
  - Coordination with Vision Works Design Documents
  - Evaluation/Design Services to add CT Scanner to the project

University of Pittsburgh, Pittsburgh, Pennsylvania
- Petersen Events Center Curtaining Systems

Baldwin Borough, Pittsburgh, Pennsylvania
- Pool Building Renovation

Good Shepherd Nursing Home, Wheeling, West Virginia
- Dietary Unity Study

Supelco Inc., Bellefonte, Pennsylvania
- New Lab Addition and Upgrade to Central Plant

The Story of Triumph Services and the Sixmo Companies:

Sixmo Architects and Engineers was formed in 2012 in Rocky River, Ohio by Patrick E. Thornton, AIA and Jared Perry, PE providing architectural and structural engineering services throughout the State of Ohio. The founders shared a common goal: to create a dynamic integrated services firm capable of offering comprehensive solutions to their clients. That vision was the genesis of what is now known as The Sixmo Companies, which includes Triumph Services (your proposed consultant); Sixmo Architecture, and DRS Architecture.

Triumph services was created in 2023 as a separate consulting engineering suite from the parent Sixmo Companies design to enhance the delivery of our existing comprehensive range of engineering services to our existing clients while creating opportunities to foster new client relationships. Our technical disciplines are applied by our professionals to a wide breadth of markets and clients, including other design firms. Our engineering team is laser focused on meeting all of our clients' objectives with reliable solutions and services.

Our Services Include:

- Structural Engineering
- Mechanical Engineering
- Plumbing Engineering
- HVAC Engineering
- Electrical Engineering
- Civil Engineering
- Surveying
- Materials Testing

Each of these services can be provided from any of our five service hubs throughout the Midwest, including:

- Cleveland, Ohio
- Zanesville, Ohio
- Marietta, Ohio
- Indianapolis, Indiana
- Pittsburgh, Pennsylvania

With a collective staff of nearly 40 professionals of varying disciplines, you will find that the Sixmo team has not only the skill sets you need to succeed, but we have the bench strength to make certain the project is done right and done right on time.

Aaron J. Mitchell, PE, SE

Principal / Chief Structural Engineer

Triumph Services
1101 Auburn Avenue
Cleveland, Ohio 44113
216-767-5400
amitchell@triumphservices.com

Aaron is a graduate of Ohio University and received his Master's Degree at Cleveland State University. His career has focused in the Commercial, Energy, Industrial, and Government markets. Aaron has been responsible for projects subject to a variety of building codes in multiple states across the U.S.

Aaron is responsible for the management of all engineering services within our organization, including those supporting our family of brands as well as those provided to other design professionals.

Professional Reference:
Mr. Bob Bajko, AIA
Principal | HSB Architects + Engineers
216.325.0565
bbajko@hsbarch.com

Education

- Ohio University:
  - Bachelor of Science Civil Engineering | 2009
- Cleveland State University:
  - Master of Science Civil Engineering | 2012

Current Registrations:

- Professional Engineer, State of Arizona
- Professional Engineer, State of Florida
- Professional Engineer, State of Indiana
- Professional Engineer, State of Maryland
- Professional Engineer, State of New York
- Professional Engineer, State of New Jersey
- Professional Engineer, State of New Mexico
- Professional Engineer, State of New York
- Professional Engineer, State of North Carolina
- Professional Engineer, State of Ohio
- Professional Engineer, State of Oklahoma
- Professional Engineer, State of Pennsylvania
- Professional Engineer, State of Texas
- **Professional Engineer, State of West Virginia**
- Professional Engineer, State of Wisconsin
- Structural Engineer, State of California
- Structural Engineer, State of Illinois
- Structural Engineer, State of Nevada
- NCEES Model Law Engineer

Technical Organizations:

- Structural Engineers Association of Ohio (SEAoO)
- CHI EPSILON (Civil Engineering Honors Society)

Featured Representative Personal Experience:

- Bendix World Headquarters | Avon, Ohio
- J.M. Smucker's R&D Building | Orville, Ohio
- Thermo Fisher Scientific | Tracy, California
- Rush Trucking Addition | St. Peters Missouri
- PolyOne Addition | Avon Lake, Ohio

Zachary Balhorn PE, SE

Senior Structural Engineer

Triumph Services
204 Front Street
Marietta, Ohio 45750
216-767-5400
zbalhorn@triumphservices.com

Zachary is an experienced Professional Engineer and Structural Engineer with a great deal of experience with concrete, structural steel, precast concrete, cold-formed steel, masonry, and wood systems. He has leveraged these skills on fast-moving, task-driven assignments and long-term, large-scale structural engineering projects.

He excels in the development of thoughtful structural systems that are carefully integrated into the architecture of each building, while being efficient and cost effective.

Zach, as we like to call him, is an avid world traveler which results in exceptional communication skills—a key to teamwork on a successful project.

Education

- The Ohio State University:
  - Masters in Civil Engineering, 2017
  - BS in Civil Engineering, 2015

Current Registrations:

- Professional Engineer, State of Connecticut
- Professional Engineer, State of Kentucky
- Professional Engineer, State of Ohio
- Professional Engineer, State of Washington
- Structural Engineer, State of Illinois
- NCEES Model Law Engineer

Technical Organizations:

- American Concrete Institute (ACI)
- Structural Engineers Association of Ohio (SEAoO)

Featured Representative Personal Experience:

- Tosoh America Inc. | Grove City, Ohio*
- Alkermes Expansion | Wilmington, Ohio*
- Henry Penny | Eaton, Ohio*
- New Community Center | Upper Arlington, Ohio*
- Nocterra Brewing Company | Columbus, Ohio*
- Vantage at Anderson Town Center*
  - Cincinnati, Ohio
- Westside Early Childhood Learning Center*
  - Columbus, Ohio
- Grandview Crossing | Columbus, Ohio*
- The Bristol Senior Living at Worthington Hills*
  - Columbus, Ohio
- K Avenue Lofts | Plano Texas*

*Indicates a project that was completed while under the employment of another organization

The Story of Sixmo Architecture and the Sixmo Companies:

Sixmo Architects and Engineers was formed in 2012 in Rocky River, Ohio by Patrick E. Thornton, AIA and Jared Perry, PE providing architectural and structural engineering services throughout the State of Ohio. The founders shared a common goal: to create a dynamic integrated services firm capable of offering comprehensive solutions to their clients. That vision was the genesis of what is now known as The Sixmo Companies, which includes Sixmo Architecture (your proposed consultant); Triumph Services, and DRS Architecture.

Sixmo Architecture was created from the same mold of the original organization, continuing the vision of the founders to provide creative design solutions for outstanding clients utilizing our talented staff of design professionals. Sixmo Architecture is dedicated to creating vibrant, sustainable, and sensible improvements to the built environment. We serve both the public and private sector with a complete slate of architectural services. While known as nimble generalists, our portfolio is highlighted by an impressive roster of public sector improvements, multi-family and mixed-use developments, and aquatics facilities.

Sixmo was founded on service to public agencies. The creation of Sixmo Architecture continues that tradition. Our team provides consulting services to dozens of agencies throughout the Midwest. These services include serving as on-call consultant, Agency representative, and executing single-project based engagements.

Our Services Include:

- Architectural Design
- Interior Design
- Code Compliance Services
- Aquatics Design
- Project Management
- Existing Conditions Assessments
- Facility Planning
- Feasibility Studies
- Site Selection and Pre-Planning
- Conceptual Design
- Schematic Design
- Design Development
- Construction Document Development
- Permitting Assistance
- Procurement Services
- Contract Administration
- Construction Administration
- Estimating
- FF&E Procurement

Each of these services can be provided from any of our five service hubs throughout the Midwest, including:

- Cleveland, Ohio
- Zanesville, Ohio
- Marietta, Ohio
- Indianapolis, Indiana
- Pittsburgh, Pennsylvania

With a collective staff of nearly 40 professionals of varying disciplines, you will find that the Sixmo team has not only the skill sets you need to succeed, but we have the bench strength to make certain the project is done right and done right on time.

Jim Clarke, RA, NCARB

Director of Architecture

Sixmo Architecture
1101 Auburn Avenue
Cleveland, Ohio 44113
216.767.5400
jclarke@sixmoarchitecture.com

Jim is a graduate of the Boston Architectural College with nearly 30 years of experience in Architectural design, documentation, and project management from conceptual design through post-construction phases. Jim is committed to delivering projects on schedule and to the satisfaction of his clients. With a broad range of experience in national and local project types, Jim has experience in renovation and new construction types for Commercial Mixed-Use, Retail, Multi-Family Residential, Restaurant, Healthcare, Education, and Recreation programs. Rooted in the belief that communication is the key to successful project delivery, he strives to keep the team informed and on the same page at every project milestone .

Professional Reference:
Ms. Donna Ross
Principal, REZTARK
dross@reztark.com

Education:

- Boston Architectural College, Bachelor of Architecture , 1999

Current Registrations:

- Architect, State of Ohio
- Architect, State of Georgia
- Architect, State of Indiana
- Architect, State of Massachusetts
- Architect, State of Michigan
- Architect, State of South Carolina
- Architect, State of Tennessee

Technical Organizations:

- National Council of Architectural Registration Boards (NCARB)

Featured Representative Personal Experience:

- City of Cleveland Central Recreation Center Improvements and Addition | Cleveland, Ohio
- Foster Pool Renovation and Site Improvements Lakewood, Ohio
- George Daniel Stadium Renovations Lorain, Ohio
- Regional Income Tax Agency Office Alterations Brecksville, Ohio
- St. Cyril School Residential Conversion Lakewood, Ohio
- Washington County Department of Health Office Improvements | Marietta, Ohio
- Marietta Schools Reroofing | Marietta, Ohio

Teresa Evanko, NCIDQ

Interior Designer

Sixmo Architecture
620 North Delaware Street
Indianapolis, Indiana 46204
317.262.1220
tevanko@sixmoarchitecture.com

Teresa has over twenty years of field experience as both an Architect, and NCDIQ Certified Interior Designer. She brings a broad knowledge of building design and construction to create brilliant interior architectural environments, integrating function and aesthetic.

Teresa's experience includes a wide variety of project types: from healthcare to government agencies; corporate to residential; and all things in between. Her understanding of projects from concept development through construction, procurement of FF&E, and closeout makes her an invaluable resource to facility managers, building owners, and prime consultants alike.

Education:
- University of New Mexico
  - BA Architecture, 1984

Current Registrations:
- Architect, District of Columbia
- NCIDQ Certified Interior Designer

Technical Organizations:
- National Council for Interior Design Qualification (NCIDQ)

Featured Representative Personal Experience:
- Kirtland AFB Dental Clinic | Albuquerque, NM
- Social Security Admin Office Renovation
  - Minton Capehart Federal Building
  - Indianapolis, IN
- NBI Disaster Recovery Center | Indianapolis, IN
- Southport Police Headquarters |Southport, IN
- GSA/SSA Office Remodel | Indianapolis, IN
- Wm. Donald Shaeffer Rehabilitation Center*
  - Baltimore, MD.
- National Headquarters, American Red Cross*
  - Washington D.C.
- Greater Baltimore Medical Center*
  - Baltimore, MD
- Fairfax County Government Center | Fairfax, VA*
- Anne Arundel General Hospital | Annapolis, MD*
- Hartford Hospital | Hartford, CT*
- National Bank of Indianapolis Façade Renovation
  - Indianapolis, IN
- Homewood Suites | Munster, IN

*Indicates a project that was completed while under the employment of another organization

Mary Beth Archer, NCIDQ

Procurement Specialist

Sixmo Architecture
620 North Delaware Street
Indianapolis, Indiana 46204
317.262.1220
mbarcher@sixmoarchitecture.com

Mary Beth has over 35 years of professional experience, including 25 with our organization. She has significant knowledge with respect to furnishings and equipment, as well as space planning, design, and facility management. Her expertise is not limited by project type.

Mary Beth has extensive experience in planning, budgeting, selection, specification, and procurement for furniture, fixtures, and equipment (FF&E). Her attention to detail ensures client satisfaction.

Her role brings significant value to our large institutional clientele as well as those making smaller purchases.

Education:

- William Rainey Harper College, AAS
  - Interior Design, 1990

Current Registrations:

- NCIDQ Certified Interior Designer

Technical Organizations:

- ASID, Professional Member
- ASID Indiana, Former Education Committee Chair

Featured Representative Personal Experience:

- The National Bank of Indianapolis FF&E Management
- Indiana University Football Locker Room
  - Bloomington, Indiana
- Gainbridge Fieldhouse FF&E Punch
  - Indianapolis, Indiana
- Assessment and Intervention Center
  - Indianapolis Indiana
- Durham Home
  - Crawfordsville, Indiana
- Homewood Suites Hotel by Hilton
  - Munster, Indiana
- Indiana University Health Clinic
  - Indianapolis, Indiana
- State Fair Coliseum
  - Indianapolis, Indiana
- Cardiology, Inc.
  - Columbus, Ohio
- Heart Partners
  - Indianapolis, Indiana
- Clarian North MOB
  - Carmel, Indiana

BrightTree STUDIOS

TECHNOLOGY DESIGN & CONSULTING

SPECIALIZING IN AUDIOVISUAL, IT, SECURITY, AND ACOUSTICS

A leader of the innovative and collaborative technology movement specializing in AV, IT/telecom, security, and acoustics, BrightTree Studios is constantly researching, building, and testing new technologies. Our team has worked on projects across the country and brings years of experience tailoring designs to clients' unique needs which allows us to continue challenging the status quo of design.

Projects like the Gettysburg Readiness Center, the Pennsylvania National Guard's Ft. Indiantown Gap Youth Challenge Building, and the transformable Ft. Indiantown Gap Auditorium give our designers the opportunity to provide high-caliber design, delivering users state-of-the-art readiness and training facilities.

As regular collaborators with architects around the world, we know that transparency, inclusion, and ingenuity lead to tremendously built environments that inspire how people live, learn, work, and play. That's why we believe in collaboration, creativity, and revolutionizing the status quo.

After all, innovation isn't just what we do; it's who we are.

We are a certified Service-Disabled Veteran-Owned Small Business (SDVOSB) and we will gladly send our qualifications for any relevant certification upon request.

Department of Veterans Affairs Service-Disabled Veteran-Owned Small Business Delaware Service-Disabled Veteran-Owned Business Enterprise Maryland Small Business Reserve Program SB12-17571; MD Dept. of Transportation Small Business Enterprise 21-595 Massachusetts Service-Disabled Veteran-Owned Business Enterprise New York Service-Disabled Veteran-Owned Business (NYS-SDVOB) North Carolina Historically Underutilized Business (HUB) Ohio Veteran Business Enterprise Pennsylvania Small Diverse Business (379074202003-SB-SDV) Virginia SWaM (715895) | SDVOSB | DisabilityIN

DAVID VARGO

CTS-D, CTS-I

PRINCIPAL

David is a Principal at BrightTree Studios with over 19 years of design experience. In addition to his work with BrightTree Studios, his designs have supported millions of square feet of high-end space in transportation and education markets. David's experience has equipped him with industry-leading know-how to follow the industry standards and best practices.

PRINCIPAL-IN-CHARGE: Working closely with the owner and architect, David will produce a high-level design and programming package, coordinate designs, and communicate with team members to ensure all programmatic requirements and visions are met in the design.

EDUCATION

B.A. Communications,
University of Maryland, 2002

CERTIFICATIONS

AVIXA Certified Technology Specialist – Design, Installation (CTS–D, CTS–I)

Crestron Digital Media Engineer (DMC–E)

EXPERIENCE

City of Pittsburgh East Liberty Police & Fire Station
City of Pittsburgh North Side Public Safety Facility
City of Pittsburgh Robert E. Williams Memorial Park
City of Pittsburgh Warrington Recreation Center
Pennsylvania National Guard Ft. Indiantown Gap Auditorium
Lower Hill Development Curtain Call
Loysville Youth Development Center Zimmerman-Bingaman Cottage
Pennsylvania National Guard Ft. Indiantown Gap Youth Challenge Facility
National Museum of Natural History Baird Auditorium
Slippery Rock University Campus Success Center

IDEAS AND INVOLVEMENT

2023 "Transforming Education With Cutting-edge Technology: Designing For Twin Metaversity Campuses," *BrightTree Studios*

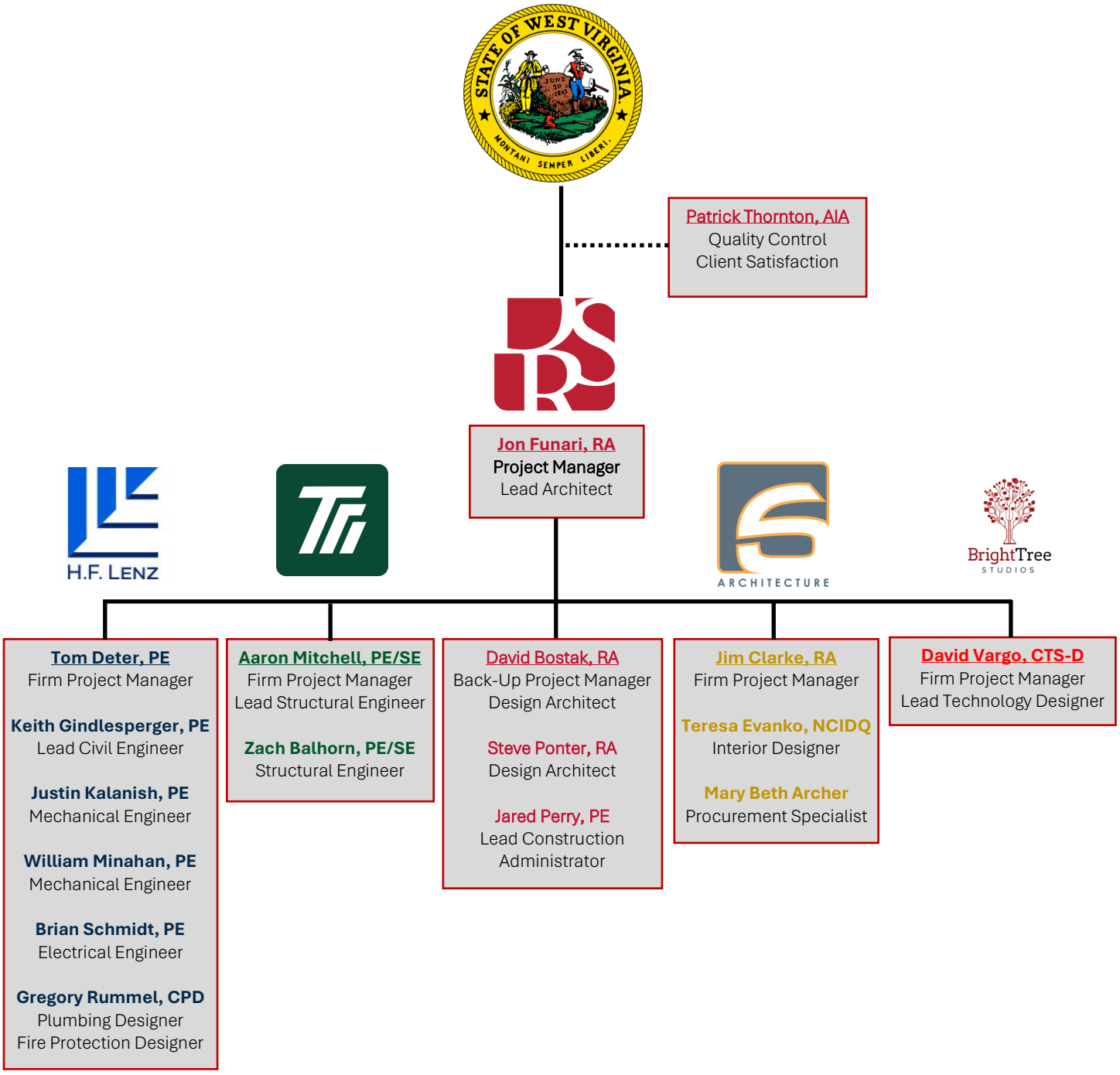
2018 "IoT: Construction Modernization and a Business Revolution," *IoT For All*

2017 "Innovation Spaces: The New Design of Work," ***Brookings Institution***, contributions on pages 13, 44-45, 49, 51

"Sports, Technology, and the New College Campus," *AVTechnology*

Staffing Plan

The following diagram represents the staffing plan for the project, including lines of command and communication. Jon Funari, RA from DRS Architects will serve as the Project Manager, with David Bostak, RA of DRS Architecture providing support and backup coverage for the Project Manager. Each sub-consulting firm will also assign a project manager to oversee their discipline—each of those individuals is listed first in the following diagram.



SECTION II
OUR EXPERIENCE

Relevant Projects

DRS Architects is one of the oldest practicing architectural and planning firms in the region; we have been located in Gateway Center in downtown Pittsburgh, Pennsylvania for over sixty years. The firm enjoys a long-standing reputation for design, management of the design process, control of project costs and schedules, and excellent service to our clients.

DRS has extensive experience in the design of Readiness Centers, Armories, and Reserve Centers, including designing and completing the recent renovations to the existing historic New Castle Readiness Center in New Castle, Pennsylvania—completed in 2019. Other similar projects include:

- Crane Avenue PA National Guard Readiness Center and Armory; Pittsburgh, Pennsylvania; Renovations and Addition
- Ford City Armory for the PA Army National Guard; Ford City, Pennsylvania; New Armory with Maintenance and Training
- Cambridge Springs Readiness Center and OMC for the PA National Guard; Cambridge Springs, Pennsylvania
- Johnstown Maintenance Facility for the PA Army National Guard; Johnstown, Pennsylvania
- Morgantown Army Reserve Center and OMS; Morgantown, West Virginia
- Elkins Army Reserve Center and OMS; Elkins, West Virginia
- Wheeling Army Reserve Center and OMS; Wheeling, West Virginia
- Kingwood Army Reserve Center and OMS; Kingwood, West Virginia
- Grantsville Army Reserve Center and OMS; Grantsville, West Virginia

Through the years the firm has enjoyed a solid reputation for design achievement having received over 50 design and technical awards including a national AIA award and numerous state and local awards.

- The firm received the very first Owens-Corning Fiberglass Award for Energy Conservation and also received national recognition with a High Honor Award for the design of the High Temperature Materials Laboratory at the Oak Ridge National Laboratory for the U.S. Department of Energy.
- DRS received a 2004 Citation Award from the American Association of School Administrators / American Institute of Architects / Council of Educational Facility Planners International for the Science, Technology & Cultural Center for Butler County Community College.

DRS Emphasizes strategies for sustainable design, site development, water savings, energy efficiency, materials selections and indoor environmental quality. DRS has completed multiple LEED certified projects.

On the following pages you will find individual examples of projects we designed that are relevant to your project. They also demonstrate a long history of work with federal and military clients.

Federal and Military Clients:

- Department of Energy / National Energy Technology Laboratories, Pittsburgh, Morgantown, and Albany (OR)
- Federal Bureau of Investigation, Pennsylvania and West Virginia
- 171st Air Refueling Wing, Pittsburgh, Pennsylvania
- 911th Air Wing / LGC, Pittsburgh International Airport
- Joint Armed Forces Aviation Facility, Johnstown, Pennsylvania
- US Army, Baltimore Corps of Engineers, Advanced Chemistry Lab, Aberdeen Proving Ground, Aberdeen, Maryland
- U.S. Drug Enforcement Administration, Pittsburgh, Pennsylvania and Milwaukee, Wisconsin
- Social Security Administration, Johnstown, Pennsylvania and McKeesport, Pennsylvania
- U.S. Postal Service, Western PA and West Virginia

Pennsylvania Army National Guard
New Castle Readiness Center Renovation

New Castle, Pennsylvania

This project was the renovation of the two-story, 23,000 square foot New Castle Readiness Center for the 107th Field Artillery Battalion, PA Army National Guard, completed through the Pennsylvania Department of General Services. The stone and brick building was built in 1938 and is listed in the National Register of Historic Places.

The project scope included exterior architectural improvements to repair the stone façade, door replacement, roof replacement over the barrel-vaulted Drill Hall, and other minor roof repairs. Site improvements included updated water and gas services, milling and repaving of the vehicle parking area and access drives, the addition of an accessible parking area, and replacement of the site perimeter fencing. Interior architectural improvements included a complete renovation and reconfiguration of the administrative areas, reconfiguration and upgrades to all the restrooms to modernize and bring them into compliance with current building codes, and improvements including minor space reconfigurations, painting, ceiling replacement, flooring replacement, and door replacements.

HVAC work included replacement of two existing steam boilers with two high-efficiency gas boilers; the addition of energy efficient air-conditioning systems for office, classrooms, fitness rooms and other areas; the addition of a new kitchen exhaust hood; and the integration of a new web-based DDC control system. All plumbing fixtures and piping systems throughout the building were replaced as part of the toilet facilities upgrade. Electrical work included upgrades to the distribution system; LED interior lighting throughout the building; new site lighting; replacement of branch panelboards, conduit, and feeders; and a new building wide addressable fire alarm system.

This project was completed in collaboration with H.F. Lenz Engineers

DRS Services Provided

Architectural Design
Interior Design
Project Management
Engineering Coordination
Construction Administration

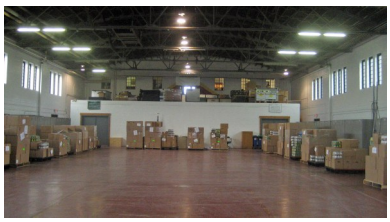
Construction Cost

$2,200,000

Construction Completed 2018

Contact

Matthew A. Dubovecky, EIT
Project Manager
PA Dept. of Military & Vet Affairs
814.533.2466
c-mdubovec@pa.gov



Pennsylvania Army National Guard
Crane Avenue Readiness Center Renovation
Pittsburgh, Pennsylvania

This project involved renovations to the existing masonry armory building and site, and the design of a new unheated metal storage building. The main building was originally designed by DRS in 1965, and includes a two-bay maintenance shop, a drill hall, three Unit storage areas with adjacent weapons vaults, a kitchen, offices, restrooms, showers, and locker rooms. The renovation made improvements to the building's accessibility, including the addition of a new elevator in the center of the building and full renovations of the restroom and shower rooms. The roof was also replaced.

Since the number of military units assigned to this facility was being increased, additional storage space was a program requirement. The demand was solved through the construction of an unheated storage building placed adjacent to the existing cold-storage building.

Mechanical, plumbing, and electrical work mainly involved the replacement of existing systems, such as heating boilers, exhaust fans, maintenance shop vehicle source-capture exhaust reels, water heater, plumbing fixtures, emergency generator, and electrical distribution panels. New lighting was also provided in the office wing corridors resulting from the necessary abatement and replacement of the existing plaster ceilings in those areas.

The scope of site work included the replacement of security fencing around the military equipment parking area, the addition of a vehicle control gate, and the creation of an accessible path for the new accessible entry to the armory.

This project was completed in collaboration with H.F. Lenz Engineers

DRS Services Provided
Architectural Design
Interior Design
Project Management
Engineering Coordination
Construction Administration

Construction Cost
$3,100,000

Construction Completed 2018

Contact
Matthew A. Dubovecky, EIT
Project Manager
PA Dept. of Military & Vet Affairs
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Pennsylvania Army National Guard
Cambridge Springs Readiness Center and OS

Cambridge Springs, Pennsylvania

This facility includes two buildings—a two-story, 65,000 square foot Readiness Center and a 20,000 square foot Maintenance Facility.

The Readiness Center is designed to support the consolidation of three Units, totaling nearly 450 reservists. Each Unit has dedicated locker rooms, storage rooms, arms vaults, and administrative offices to allow independent operations. Facilities shared by the three Units include a medical clinic, a fitness room, an assembly hall with full-service kitchen, four large classrooms, break areas, general administrative offices, and a recruitment center. The building is designed for community use of the assembly hall and adjacent restrooms while locking out the remainder of the facility. The site development and building construction were designed to meet the Anti-Terrorism and Force Protection Level established for the facility.

The Maintenance Building is 20,000 square feet in area and is designed to provide field maintenance support for Unit vehicles and equipment. The facility consists of six maintenance bays, two of which are serviced by a 15-ton overhead crane (including a warm-up bay and a welding bay). The building also houses administrative, personnel, storage, and work areas. The maintenance bays are each 32' by 74' and designed as drive-through bays sized to accommodate the largest equipment assigned to the facility. This building also includes a wash rack, an exterior fuel storage and dispensing system, a controlled waste handling facility, and a separate building for miscellaneous storage. The work space is heated with an in-slab radiant hot water pipe system supplemented by gas-fired radiant heaters at the overhead doors. Each work bay is equipped with vehicle exhaust removal, compressed air service, an overhead power reel, and multiple 220v receptacles.

Both buildings are constructed with structural steel framing, concrete masonry unit walls, and a brick veneer. The Readiness Center was designed to achieve a SPiRiT bronze rating for energy and environmental design.

DRS Services Provided

Architectural Design
Interior Design
Project Management
Engineering Coordination
Construction Administration

Construction Cost

$19,000,000

Construction Completed 2008

Contact

Mark Austin, Director
Bureau of Facilities & Eng.
Dept of Military & Veterans Aff.
717.861.2915

Pennsylvania Army National Guard
Ford City Armory
Ford City, Pennsylvania

The DRS Design Team worked closely with the Pennsylvania National Guard, the Department of Military Affairs, and the Department of General Services in developing the design for a new armory and surrounding site. The process involved the creation and evaluation of several design options that were revised and refined until the design reached the most functional solution that met the requirements and goals of that National Guard Unit.

The armory was the first building constructed in the new Manor Township Business Park in Ford City. With an area of 24,400 square feet, it houses the following:

- Educational Space, including classrooms with folding partitions, a library, and a learning center
- An Assembly Area and Drill Hall, along with the supporting Unit storage rooms, kitchen and food preparation area, table and chair storage, facility maintenance storage, arms vault, and fitness room
- Maintenance and Training Area, which includes a work bay, flammable storage room, and a controlled waste area
- Administrative Spaces that include the recruiting office, staff offices, and a general office space
- Common Spaces, including the lobby, break room, restrooms, and locker rooms

For durability, ease of maintenance, and a long life the building is constructed of load-bearing masonry walls. Exterior walls are a combination of utility brick and split-face concrete masonry units with recessed accent strips. The entrance is expressed by an exterior patio enclosed by the building walls but open to the sky above. Glass block was used to allow natural light into the assembly area and the maintenance bay while still providing added durability.

DRS Services Provided
Architectural Design
Interior Design
Project Management
Engineering Coordination
Construction Administration

Construction Cost
$2,400,000

Construction Completed 1998

Contact
Major John Saufley, PE
PA Army National Guard
717.861.8212

Grantsville U.S. Army Reserve Center and OMS

Grantsville, West Virginia

The DRS Team designed this 15,300 square foot Training Building and 2,400 square foot Organizational Maintenance Shop in Grantsville, West Virginia. The Training Building contains full-time staff offices, Unit-exclusive offices, Unit common space, a retention office, and administrative support. The building also houses assembly areas including the main assembly and drill hall, chair and table storage, service kitchen, arms vault, and armorer shop. Educational facilities include classrooms, a library reading room, library storage, a learning center, training equipment storage, COMSEC training spaces, and COMSEC storage. Special training areas include the weaponeer room and a special projects classroom. Each Unit has dedicated storage areas, a staging area, and supply offices.

A site Delineation and Engineering Feasibility Study was developed by our team prior to the building design to determine the viability of the selected site.

The OMS Building contains shop offices, tool storage, parts storage, battery storage and changing area, flammable storage, hazardous storage, and restrooms. The maintenance area houses a double work bay and a single wash bay.

DRS Services Provided
Architectural Design
Interior Design
Project Management
Engineering Coordination
Construction Administration

Construction Cost
$4,500,000

Construction Completed 1998

Contact
Margie Marcus, Design Manager
US Army District, Baltimore
Corps of Engineers
410.962.6790

U.S. Army Reserve—Aviation Facility

Johnstown, Pennsylvania

DRS Architects had prime responsibility for the design of a new 120,000 square foot hangar and support facility for rotary and fixed-wing aircraft, along with the development of an 80-acre site for the U.S. Army Reserve Aviation Facility at the Johnstown-Cambria County Airport.

The building provides parking and maintenance areas for both rotary and fixed-wing aircraft, along with support and administrative space. It features motorized hangar doors telescoping across the 300-foot wide main opening, and a five-ton crane with a 40-foot span that serves the entire length of the hangar. Inside are shop areas for hydraulics, air frame repair, sheet metal, rotors, engines, batteries, material and maintenance control, and corrosion control. The operation of the facility is supported by spaces for navigation and flight planning, avionics, a flight briefing room, an officers' ready room, administrative offices, common areas, classrooms, and a medical bay. Common spaces include the lobby, break room, restrooms, and locker rooms.

The scope of work also included the design of taxiways, hangar aprons, parking for up to twenty-four AH-1's and four C-12s, taxiway lighting, signage, and site stormwater collection and retention.

DRS Services Provided

Architectural Design
Interior Design
Project Management
Engineering Coordination
Construction Administration

Construction Cost

$22,000,000

Construction Completed 1997

Contact

James K. Payne, NAB02
Chief, Project Develoment
US Army Corps of Engineers
410.436.0526

911th Airlift Wing / LGC
Base Civil Engineering Building
Pittsburgh, Pennsylvania

DRS provided design services for the new 21,700 square foot Base Civil Engineering Complex for the 911th Airlift Group at Pittsburgh International Airport. This facility provides administrative spaces, shops, and storage areas to support the engineering staff and 150 reservists in maintaining the existing facilities. Our team was also responsible for finalizing the program, site planning, developing the space standards, facility design, all submission requirements (i.e. design analysis, LCCA, M-CACES, FIP, DD Form 1354, construction schedule, drawings, and specifications), and selection of the furniture as part of the Comprehensive Interior Design Package.

Facilities include:

Administrative Functions: Offices, Engineering, Drafting Room with CADD, Print/ Reproduction Room, Civil Engineering Squadron Facilities, Classrooms, Conference Room, and Support Facilities

Shop Functions and Equipment: Plumbing, Sheet Metal and Welding Shop, HVAC Shop, Liquid Fuels Shop, Electrical Shop, Battery Shop, Paint Shop, Locksmith, Carpentry Shop, Locker Rooms and Support Facilities

Storage Functions: Civil Engineering Squadron Storage, Fire Extinguisher Shop and BCE Covered Storage Area

DRS Services Provided
Architectural Design
Interior Design
Project Management
Construction Administration

Construction Cost
$3,500,000

Construction Completed 1998

Contact
Bob Moeslein
Base Civil Engineer
412.474.8571
Robert.moeslein@pittsburgh.af.mil

U.S. Army Reserve Centers

Morgantown, Elkins and Kingwood, West Virginia

DRS had prime responsibility for the design of three new US Army Reserve Centers and Organizational Maintenance Shops (OMS) in Morgantown, Elkins, and Kingwood, West Virginia.

The 300-member Morgantown reserve center is located on an eight-acre site and contains 21,700 square feet of space in the main building and 5,500 square feet in the four bay OMS building.

The 60-member Elkins Reserve Center is located on a four-acre site and provides 12,000 square feet of space in its main building and 4,200 square feet in the three-bay OMS building.

The 100–member Kingwood Reserve Center is located on a five-acre site with 19,000 square feet in its main building and 5,000 square feet in the four-bay OMS building along with an additional 600 square feet of covered outdoor storage.

The DRS Team was responsible for site planning, space planning, facility design, design analysis, construction schedule, construction drawings and specifications, interior design, and the selection of furniture for all three of these Reserve Centers.

All three facilities contain Administrative Spaces with full time staff offices, Unit-exclusive offices, Unit common spaces, a Retention office, education spaces such as classrooms, a learning center, a library, a COMSEC training room, storage spaces for Unit, individual storage, COMSEC storage, assembly area, kitchens, arms vault, and ancillary spaces. The OMS Facilities contain work bays, wash bays, shop offices, battery rooms, tool storage, parts storage and flammable/hazardous materials storage areas.

DRS Services Provided

Architectural Design
Interior Design
Project Management
Engineering Coordination
Construction Administration

Construction Cost

$12,000,000

Construction Completed 1996

Contact

Margie Marcus, Design Manager
US Army District, Baltimore
Corps of Engineers
410.962.6790

DOE/NETL
Building 26 Cafeteria
Morgantown, West Virginia

DRS was selected to transform an existing campus' 25-year old main dining area into a dining and collaborative meeting space that would be available to their employees on a 24 -hour basis.

The existing kitchen and dining area had been closed for nearly one year, and with its reopening the client wanted to both update the dining space and provide staff with a new environment that would encourage and stimulate collaboration.

The existing servery and kitchen area, originally open to the dining space, were separated with a new partition that allowed visual access between the two spaces. New entry and exits were provided for the space to address egress requirements and encourage the rooms use during off-hours. The existing servery received minor finish upgrades to coordinate with the new dining and collaborative meeting areas.

Working within a tight time frame and budget, the project moved from design development through construction completion within a 14-week period.

The original quarry tile floor was covered with a new LVT floor. Areas were highlighted with accent wood plank paneling in both the dining and entry to the servery area. Using ceiling planes, specialty lighting, partial height walls, and a variety of fixed and flexible furniture styles smaller and more flexible seating areas were created. Power and technology were added to the space to aid in encouraging the use of the space by the employees.

DRS Services Provided
Architectural Design
Interior Design
Project Management
Engineering Coordination
Construction Administration

Construction Cost
$440,000

Construction Completed 2017

Contact
Dean Stobbe
DOE/NETL
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DOE/NETL
Building 65 Compressed Gas Storage Facility
Pittsburgh, Pennsylvania

This project was one of many individual tasks that DRS executed under an Indefinite Delivery Indefinite Quantity, or IDIQ contract, with the Department of Energy's National Energy Technology Labs (NETL). Compressed gas cylinders, used for scientific research at NETL's Pittsburgh Campus, had been stored for decades in a long, open shed that was constructed in 1940, known as Building 65. The structure was in an advanced state of deterioration, leading to unsafe conditions for both the cylinders and NETL personnel, with uneven floors, rusted building structure, and a sprinkler system that had been modified several times in an attempt to increase safety. In addition, the concrete loading dock was severely cracked and structurally compromised.

During the schematic design process, DRS Architects presented several design options to fulfill NETL's goals for the project, which included greater safety, secured storage of the cylinders, ease and safety of loading and unloading operations, compliance with NFPA 55, the need for zoned storage, and the appropriate fire protection.

The design options were reviewed and renovation of the existing facility was ruled out as a viable option, so DRS designed a new 3,000 square foot open storage building which met NETL's goals. The new facility complies with modern codes, accommodates the standard bottled gas delivery methods used on campus, and occupies a smaller footprint than the former structure allowing more space for future expansion or alternative uses for adjacent areas.

DRS Services Provided
Architectural Design
Project Management
Engineering Coordination
Construction Administration

Construction Cost
$75,000

Construction Completed 2015

Contact
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Cont. Officers Tech Rep.
Dept of Energy / NETL
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Thelma Lovette YMCA

Pittsburgh, Pennsylvania

DRS was asked by the YMCA of Pittsburgh to provide complete architectural and interior design services for the construction of a new, state-of-the-art facility to serve the city's historic Hill District. For many generations Pittsburgh's Hill District fed our nation's cultural development just as the nearby steel mills fueled her industry. Important new directions in American music, painting, theater, and dance were rooted in this community until redevelopment in the 1960's and the collapse of the steel industry introduced an economic blight that has continued to this day.

Working closely with YMCA leadership, city agencies, local politicians, and community organizers, DRS designed a new three-story facility for this critical neighborhood intended to be a cornerstone of the area's carefully planned, long awaited renaissance.

A venue for both fitness activities and social services, this full-service YMCA includes a gymnasium, swimming pool, exercise rooms, indoor track, multi-purpose rooms, computer lab, daycare facility, outdoor playground, public plaza, offices and support spaces. Its design incorporates advanced environmental practices and exploits natural site conditions to enhance energy performance. Furthermore, the functional arrangement and expression of spaces provide urban design amenities consistent with the prescribed goals of the neighborhood master plan.

The building achieved LEED NC Silver accreditation.

DRS Services Provided
Architectural Design
Interior Design
Project Management
Construction Administration

Construction Cost
$10,600,000

Construction Completed 2012

Contact
Aaron Gibson, Executive Director
Thelma Lovette YMCA of Greater Pittsburgh
412.227.3800
agibson@ymcapgh.org

North Fayette Township Community Center

Oakdale, Pennsylvania

The New Community Center provides residents of a growing North Fayette Township with a much needed public recreation center and gathering place. This 30,000 square foot, state-of-the-art facility includes a gymnasium, elevated indoor running track, exercise room, children's education center, community rooms, administrative offices, locker rooms, lounges, support spaces, and an upper floor banqueting suite with an adjoining roof terrace.

Designed to accommodate nearly 200 guests, the banqueting suite overlooks the outdoor activity fields in the surrounding community athletic complex. The combined resources of this new facility have been tailored to meet a strict budget and the present demands of the community for services. However, should circumstances change in the future, the building has been planned to accommodate a 50% expansion, including an additional full size gymnasium.

DRS Services Provided

Architectural Design
Interior Design
Project Management
Construction Administration

Construction Cost

$4,500,000

Construction Completed 2016

Contact

Robert Grimm, Township Mgr
North Fayette Township
724.693.3103
rgrimm@north-fayette.com

Bendix World Headquarters

Avon, Ohio

Triumph Services was commissioned by GLSD Architecture to design the structural systems for a new ground up, 2-story Class A office and laboratory building as well as a 1-story truck maintenance garage in Avon, Ohio. The office and laboratory building has an approximate gross area of 233,000 square feet. Approximately 64,000 square feet is dedicated to laboratory use, 84,000 square feet to ground floor office space, and 85,000 square feet consists of a partial second floor, designed for future expansion and infill.

The office and laboratory building consists of full height glass curtain wall with an architectural integration of the building steel framing, as well as several structurally coordinated interior architectural design features. The truck maintenance garage is a standalone building on the same property as the office and laboratory building and has an approximate area of 13,000 square feet. The truck maintenance garage includes a 1,500 square foot mezzanine for storage and maintenance operations. Both the laboratory and truck maintenance garage include bridge cranes suspended from the roof steel as well as equipment foundations and trenches.

Triumph Services Provided

Structural Engineering

Construction Cost

$30,000,000

Construction Completed 2021

Contact

Ms. Jen Diasio
President, GDOT Design
216.218.3507
jend@geisco.net

De Nora Tech

Mentor, Ohio

Triumph Services and Sixmo Architecture were selected to design the building envelope for a 125,000 square foot new manufacturing facility for De Nora Tech in Mentor, Ohio.

Complete architectural and structural engineering services were included in the development of the shell, designed to house high-hazard manufacturing areas and moderate-hazard storage areas.

The structural team worked closely with both their sister firm and the construction management team to select the most cost-effective structural system, while the architectural team navigated complex code compliance issues.

The building structure consists of a post and beam structural system on shallow concrete foundations, clad in a combination of precast concrete panels and metal wall and roof panels.

Triumph Services Provided
Structural Engineering

Construction Cost
$20,000,000

Construction Completed 2017

Contact
Jamie Schafer
De Nora Tech
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jamie.schafer@denora.com

Indiana University Football Locker Room Renovation

Bloomington, Indiana

The Sixmo Architecture Team under prior ownership (as Brenner Design Architects) was selected to provide architecture and interior design for this $8.5M locker room improvement project. The project was executed in association with SmithGroup - the Master Sports Architect for the University.

The design included a massive new players locker/shower room, players lounge, sports medicine, hydrotherapy, and coaches locker/shower room. The main entrance to the locker room is emphasized by Legacy Hall, a space celebrating the history of the Indiana University football program. The project also included the expansion of the Circle of Excellence, an interior corridor linking two additions and serving as a hub for all the primary functions in the building.

The entire complex was themed in honor of the program and includes contrasting graphics, LED monitors, and a focal gridiron at the center of the locker room.

Sixmo Architecture Services Provided
Interior Design
Interior Architecture

Construction Cost
$8,500,000

Construction Completed 2020

Contact
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Deputy Director of Athletics
smharper@iu.edu
812.856.0206

Purdue University Performing Arts Building

West Lafayette, Indiana

The Sixmo Architecture Team under prior ownership (as Brenner Design Architects) was selected to provide architecture and interior design for this higher-education project.

This $20 million dollar project houses the University's music program as well as art galleries, classrooms, a recital hall, and a large auditorium. It also includes offices and workspace for community art groups.

The interior finish palette is created by soft, tonal, light-colored neutrals which are accented by burgundy and green, the school colors. The interior includes areas for placement of student works of art at the ends of corridors, in niches, and as visual focal points in important spaces. Each art area incorporated appropriate accent lighting, flexible enough to support any future student artwork in any media. To meet the design criteria, The Team used a combination of sound reflective as well as sound absorptive materials. Working closely with the project acoustician, painted medium density fiberboard for areas of high traffic or excessive noise areas was incorporated. The textiles used for the seating in the main performance hall were selected for durability and aesthetics. Overall the interior presents a clean visual image and a clear acoustical environment for this significant arts and music program.

Sixmo Architecture Services Provided
Interior Design
Architectural Design

Construction Cost
$20,000,000

Construction Completed 2017

Contact
Jay Harris
Purdue University
765.494.3420

Forensic Psychiatric Building

Pennsylvania Department of General Services

The Department of General Services of Pennsylvania is constructing a brand-new 380,000 square foot Forensic Psychiatric building at Norristown State Hospital. Serving as one of only two forensic psychiatric hospitals in Pennsylvania, Norristown State Hospital plays a vital role in providing services to the entire eastern region of the state.

Given the unique security requirements for forensic psychiatric patients, the new building was designed to prioritize both treatment and safety needs for patients and staff. In addition to a video surveillance system providing a secure perimeter, the building features access-controlled doors on both the interior and exterior. Beyond increasing patient living units, the building includes modernized treatment, administration, and functional spaces to ensure that all forensic patient services and operations are executed in the same facility.

Through the collaboration between the Department of General Services and our expert team, the new Forensic Psychiatric building at Norristown State Hospital provides a cutting-edge environment that meets the long-term demand for forensic psychiatric bed capacity. The project underscores our commitment to delivering audiovisual, IT, and security designs that prioritize safety, efficiency, and the successful treatment of forensic psychiatric patients.

SECTION III
UNDERSTANDING

Understanding

The Agency intends to undertake the development of a new construction project in Parkersburg, West Virginia, **just 16 miles** from one of the offices of engineering consultant Triumph Services—sister company to DRS Architects. The proposed project will be a new West Virginia National Guard Readiness Center. The facility will be used by soldiers in training, and used to support elements of the West Virginia Army National Guard Command. No program has yet been developed for distribution, and as such it is our assumption that the vetting and development of the project program will be the responsibility of the Design Professional.

The project is to be separated into two distinct phases. The objective of the first phase is to develop a design to a point at which a reliable budget can be established and utilized to acquire funding. The second phase, which may be delayed by up to two years, will include the balance of the work necessary to bring the project to a completed, constructed state. The execution of the second phase is not guaranteed and will be subject to approval of federal funding.

The proposed address, 300 Campus Drive in Parkersburg, West Virginia, is at/adjacent to the West Virginia University—Parkersburg Campus.

Phase 1 is intended to carry the project through approximately 35% completion, arming the Agency with the information necessary to apply, and hopefully obtain, the funding necessary to move forward with the project. That information will include a design with sufficient detail to create reliable cost estimates and project schedules. That may include information regarding building materials and construction techniques, floor plans and elevations, site plans including general utility information, etc. The scope of work in this phase will require geotechnical exploration and engineering recommendations, utility location and identification, coordination with adjacent agencies and utilities, and a study of road infrastructure. It is the objective at this stage that proposed systems are energy efficient, economic, and maintenance friendly. A summary of findings at the 35% milestone will be formally documented and bound as a deliverable.

Phase 2 will only be executed upon directive of the agency, and upon acquisition of funding. This phase will include all design and engineering necessary to bring the project to fruition, all permitting required, and construction administration during the build process. Specific prescribed milestones for approval by the Agency for this phase are 65%, 95%, and 100% construction document completion. Cost estimate revisions will also be undertaken at these milestones. The final deliverables shall meet all relevant building codes and military force protection and construction codes and regulations. The Consultant will also assist the Agency in the procurement of a contract for construction, and provide construction administration services.

SECTION IV
OUR APPROACH

Our Approach

As architects, our job is to guide the design process, not to impose one-sided solutions on a given project. We use our experience and knowledge to provide information that will allow participants to make informed decisions, while working creatively to solve problems in a thoughtful way.

At each stage of the design process, we aim to foster a collaborative environment where ideas can flourish and evolve organically. By nurturing a dialogue that builds upon previous discussions, we ensure that every iteration of the design is continuously refined and improved from the last. The ideal result is a final design that resonates with all involved, evoking a sense of satisfaction and pride from the collaborative contribution to its evolution.

The proposed design process and project management for the Parkersburg Readiness Center will follow this approach, moving the project from start to finish through the milestones and submissions outlined in the Expression of Interest.

Phase 1 - Planning (35% Design)

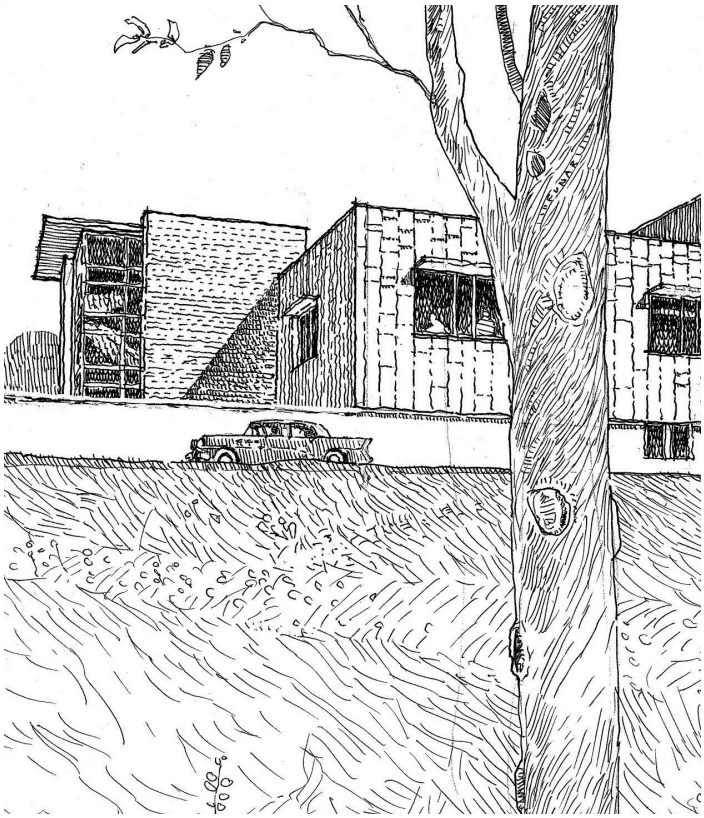
Our process will begin with a series of meetings with the using Agency to verify current program and goals of the project, and to assess other requirements established for the project. DRS Architects, HF Lenz Engineers, Triumph Services, Sixmo Architecture, and BrightTree will attend these meetings as needed. Although some important design decisions will occur later in the project, such as interior design, some of the basic decisions for the project will be explored and assessed in these early stages - such as the appropriate sighting of buildings on the property, building massing as effected by the site choice, and selection of major mechanical and electrical systems. The design team will meet stakeholders to discuss the goals for the project, the requirements for each element, and learn how the facility will be used. Even though the government may have established standards for design of this facility type, we have found that every project presents some unique circumstances.

H.F. Lenz Engineers will search for ways to provide long-term operating benefits, such as ease of systems maintenance, redundancy, and effective life-cycle costing. They will also explore any sustainability or green building objectives beyond those required by the International Energy Conservation Code.

The project team will also study the existing site conditions during this phase, including undertaking geotechnical investigations and studies; collecting site development information such as utility availability and capacity; surveying and documenting site conditions (if that information is not already made available by the Agency); and developing a thorough understanding of any relevant or governing land development codes, restrictions, or requirements.

Approximately half-way through this Phase 1 (around 15% of the total project), the team will compile a written report of all findings to this point and issue for review by all stakeholders to confirm accuracy of assumptions and findings. Adjustments will be made prior to progressing to the next stage. This report will:

- Describe the project and program in detail
- Describe each element planned for the facility
- Explain the needs of each space as understood by the design team
- Review the applicable building codes to determine how they may affect the design and construction of the facility
- Indicate a direction for initial major decisions, such as building placement and what the general arrangement of the floor plan may be
- Serve as a record to guide the balance of the design process



Once the intermediate report has been accepted, essentially establishing a benchmark for design, the team will continue the design process for the balance of Phase 1. This effort begins by translating the information gathered to date into floor plan diagrams and drawings that define the priorities of the project and summarize the primary ideas discussed with the participants of the process. The diagrams will typically offer various options.

The purpose of these diagrams is not to solve the design immediately, but rather to act as seeds for conversation on the advantages and disadvantages of each option, and to identify the limitations and opportunities for the facilities and site. This conversation, usually occurring over the course of a meeting or two as plan options are refined, will help the design team develop a deeper understanding of the priorities and goals of the project.

The design team's engineers and consultants will be key participants in the process at this early stage. They will develop general strategies for the way various systems will work in the building and determine the effect those systems will have on the design. We will discuss the requirements for mechanical, electrical, plumbing, fire protection, and data/comm systems. The team will evaluate the proposed plan options and adjust them accordingly to address the goals of the project.

Over the course of this phase the team should reach an understanding of what should be included in the design, what may or may not fit on the site or in the budget, and what elements should be included as possible base bid options if needed.

The next stage of the work is the development of the design to a point at which reliable financial models can be built for the project. The design will be refined in a process that moves from larger challenges to smaller ones.

In meetings with the stakeholders and users of the facility, we will:

- Examine the location of buildings on the site and refine the placement of building footprints and surrounding elements.
- Look at the way the interior spaces will be used and how they each should interrelate, one room at a time, and determine how best to embody use patterns in design.
- Examine the effect MEP/FP systems will have on the design and how best to incorporate them.
- Begin researching and selecting the appropriate materials and products to use in the new facility, as well as potential construction methods
- Begin refining decisions on the structural and civil (site) designs

The result of this process (Phase 1) is a 35% complete design package (including estimated costs to execute the programmed work) that is sufficient for the Agency to secure funding for the entire project. This package will include 35% completion level design drawings such as site layouts, floor plans, exterior elevation, and detailing necessary to ascertain the cost of such work. It will also include our opinion of probable costs including suitable for the establishment of a complete project budget. Finally, the bound deliverable will include a summary of the process to date.

The document will be presented to the agency initially in draft form for final review, and any necessary modifications will be made prior to finalization. At the end of this phase the design team and the Agency should have reached a collective consensus on a single conceptual design that best expresses the goals of the project, physical and financial.

At this stage of the process, while the Agency utilizes the data we have provide to secure the funding to advance the project, our team will carefully catalog our findings, process, and all the collateral collected in a sort of "mothballing" of data in an effort to preserve the knowledge we have collected to survive the potential two year delay between the conclusion of the Phase 1 35% effort and the receipt of direction from the Agency to initiate Phase 2.

Phase 2 - Execution (Construction Documents through Construction)

Construction Documents

Upon receipt from the Agency of directive to proceed with Phase 2 of the project, our team will arrange a re-initiation conference to review the current goals and objectives with all stakeholders. This will ensure a complete understanding amongst all players—including any new individuals that have entered the process during the time span between phases.

Based on the approved Phase 1 designs, the design team will work to resolve any outstanding items as well as any deviations resulting from the funding approval process. This initial sub-phase will consist mainly of cleaning up loose ends, making changes necessary to meet new agency requirements, and making adjustments dictated by budget. All the information preceding this point in the process is then compiled into a set of conformed construction documents, suitable for procurement, permitting, and construction.

The process of developing the final construction documents will involve a great deal of coordination between disciplines, coordination between the design team and Agency and user, and coordination between the design team and any related outside vendors that the Agency assigns. The ability to communicate as a team is essential in this part of the process. From common software platforms to communication systems—every aspect that simplifies communication results in a higher quality deliverable. That equates to fewer surprises along the way. Our project team has a great deal of experience collaborating on projects—including a modest number of Readiness Centers. Three of our team members share ownership and infrastructure, increasing our ability to communicate, share data, and collaborate.

This phase is not executed in a vacuum. The team will hold periodic design meetings that engage the Agency and user in the detailed design decision processes. Intermediate check sets will be distributed and page turns will be held to ensure progress is meeting the objectives of the project and that the designs are continuously improved in a manner that results in a successful project. Milestone check sets will be distributed for review and comment at 65% and 95% completion points. Comments will be integrated into the design, and estimates will be revisited. At what we will call 99%, a final set will be distributed for final approval, upon which the documents will be buttoned up and prepared for the permitting and procurement processes.

Permitting

Our team of professionals will be responsible to foster any permitting processes that are necessary, including zoning, planning, design review, and building code compliance. We will review recommended revisions to the documents necessary for permitting approvals with the Agency so that decisions can be made in the best interest of the project. Once all AHJ's have been satisfied and approvals acquired, the document set will be consolidated into a conformed 100% complete set, distributed to the team for approval to move into the procurement sub-phase.

Procurement

Throughout the procurement process the entire DRS team will be available—led by the project manager—to respond to proposing firms (bidder) questions and inquiries to ensure that each bidder has a complete understanding of the projects technical details as well as the Agency's objectives. As clarifications may be necessary, supplemental information will be developed and assimilated into the construction documents prior to construction.

Construction Administration Phase

Our team of professionals will administer the construction phase of the work, providing services including:

- Participate in Project Kick-off Conference
- Participate in periodic OAC meetings (field meetings)
- On-site observation (full or part time)
- Review of shop submittals / shop drawings
- Responses to Contractor written requests for information
- Manage the change process
- Review payment applications
- Provide documentation of the entire construction administration process
- Develop punch-list / facilitate substantial completion walk -through

The leadership for construction administration will be from the nearest office of the project team to ensure quick response time to field issues. In this case, that location will be just 16 miles from the project site.

Project Management and Communication

The key to a successful project for all stakeholders is management and communication. Each project is managed from the viewpoints of design, technical excellence, and administration. DRS uses several management concepts to achieve these goals:

- Principal leadership
- Establishment of design and technical criteria and standards
- Quality control
- Project planning and scheduling
- Internal checking of project progress and budgets
- Coordination within DRS
- Coordination with outside consultants

The design and construction process is collaborative, so clear and regular communication is vital to a successful project. A communication plan is established at the beginning of each of our projects, usually following the flow of the organizational chart of the team. The project manager is the funnel through which all communication is channeled, whether it is from the client to the design team, the team to the client, consultant to client, and so forth.

We typically identify at least one other member of the DRS team to be included on all electronic communication, of the sake of redundancy should the project manager become unavailable for any period of time, to assure that the needs of the project are continuously covered.

Within the design team, communication is regular and fully integrated, as needed. Internal design team meetings are held between DRS team members and consultants, at intervals throughout the process, to make sure the various design disciplines are coordinated and questions are answered.

As projects proceed and relationships develop, clients become comfortable communicating directly with the design team consultants. We encourage this, as long as the DRS project manager is included in the conversations or correspondence. Not every issue that arises will need an architectural solution or architectural involvement. Often, issues that are initially thought to be purely technical can have an effect on the project beyond just solving the issue at hand. This is why every discussion needs the participation of the project manager. The project manager will be looking at the issue from a larger perspective, and will be able to determine what influence any solution might have on the project objectives.

Quality Control

DRS uses a regimented quality control program throughout the project to make sure projects are completed on time and within budget. We ascribe to a vertically integrated project delivery system, where the same group of architects and engineers are responsible for all project tasks from the start of the project to the finish.

Although the design team routinely checks and coordinates the design documents at intervals through the process, we use an Independent Technical Review (ITR) Team on many of our projects. The members of the review team are purposely chosen from outside the projects team. The reason for this is to have a fresh set of eyes looking at the project design, documents, and decisions. They are more likely to spot an anomaly that the design team, focused on documenting design decisions, might not otherwise identify.

The ITR team reviews the documents at stages as the project develops, and is typically comprised of senior members of the design firms encompassing all disciplines. This approach has worked well for our projects, including those with a high degree of complexity.

QC Review Procedure

Quality Control reviews will be undertaken by the ITR prior to each design submission—including prior to the issuance of the Phase 1 deliverables, and again at 65%, 95% and 100% milestones during the Phase 2 process. The ITR will review the documents of the applicable disciplines to determine the submission's ability to convey the intent of the systems and assemblies shown. The review will also assess the appropriateness and reasonableness of information noted in the documents based upon the design submission requirements. During this process, drawings from the various disciplines are reviewed simultaneously, and comparisons are made between building systems and building architecture. Recognizing potential problems at these early stages will help to avoid changes during construction.

The review shall address, but not be limited to:

- Accuracy, completeness, clarity and consistency
- Identification of deficiencies, ambiguities, errors, and omissions
- Delineation of contract scope, including identification of bid packages, alternates, and items not in the contract (NIC)

Interdisciplinary Coordination Review (ICR)

The design team will use standard design checklists to assist with the reviews. These checklists will help focus on interface points between the various design disciplines, and help uncover inconsistencies or coordination discrepancies between or among disciplines. The ICR shall also look at the typical sequences of construction to see if the design may effect the way the project is constructed or phased.

Design Submission Reviews

DRS is familiar with peer reviews at milestone submissions. Face-to-face meetings will be held after the submissions, if needed, to address comment items. The review and follow-up meetings ensure compliance with technical requirements and quick response to the concerns of the User.

Additional Information

Learn more about our team of professionals by visiting our websites:

www.DRSArchitects.com
www.HFLenz.com
www.TriumphServices.com
www.SixmoArchitecture.com
www.BrightTreeStudios.com

www.SixmoCcompanies.com