



# West Virginia General Services

**CEOI 0211 GSD2300000004**

**Building 37 Window, HVAC, Roof,  
and Envelope Upgrades Project**

01/31/23 12:25:07  
WV Purchasing Division

 **McKINLEY**  
ARCHITECTURE + ENGINEERING



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January 30, 2023

Melissa K. Pettrey  
Senior Buyer  
Department of Administration, Purchasing Division  
2019 Washington Street East  
Charleston, WV 25305-0130

Dear Ms. Pettrey and Members of the Selection Team,

McKinley Architecture and Engineering are pleased to provide the Acquisitions and Contract Administration Section of the Purchasing Division, on behalf of the WV Department of Administration, General Services Division, with our expression of interest to provide professional architectural / engineering design services for the replacement of the existing windows and ribbon window systems, replacement of the existing roof, HVAC upgrades, and clean and caulk the exterior envelope of Building 37 located in Kanawha City in eastern Charleston, WV. As you review this submission, we emphasize the following strengths of McKinley Architecture and Engineering with respect to your project:

***McKinley Architecture and Engineering (McKinley & Associates)*** is a full service Architectural / Engineering firm that has been providing design services since July 1, 1981. With offices in **Charleston** and Wheeling, WV and Pittsburgh, PA, we support a professional staff of **40 employees**, which includes **Architects, Engineers, an HVAC Qualified Commissioning Process Provider, Construction Contract Administrators, an AIA Safety Assessment Program (SAP) Evaluator**, and more. Our staff of also includes **LEED Accredited Professionals** and **LEED Accredited Professionals specializing in Building Design and Construction** who can add **energy efficient aspects** into your project.

We are excited to announce that we are a member of **PSMJ's 2022 Circle of Excellence** as one of the **top-performing Architecture and Engineering firms in the nation**. We also pleased to announce that for the **3rd consecutive year**, McKinley **nationally ranks** and appears on the **Inc. 5000 list** the **most prestigious ranking of the nation's fastest-growing private companies**.

Our past experience will show our extensive experience in **similar type projects**, which you will see throughout our proposal, which allow us to use those experiences in your project. We have gained knowledge and insight to evaluate these projects, which helps us anticipate unforeseen existing elements that may occur in a renovation project. We also have experience with administering **phased**, and **tenant occupied**, construction projects. We know we have the knowledge and manpower to successfully complete all of your Goals and Objectives.

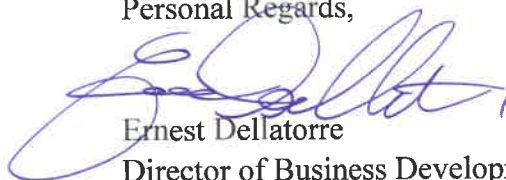
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McKinley Architecture and Engineering is on the **forefront of innovative design**. We have designed **LEED Certified and LEED Registered** projects, projects listed on the U.S. Environmental Protection Agency's ENERGY STAR program, and more. Not only have we won multiple State awards for our designs, we have also won many National awards and recognitions. McKinley Architecture and Engineering was recognized for our **commitment to sustainability and high performance green buildings**, and was presented with the **Governor's Award for Leadership in Buildings Energy Efficiency**.

One of the more exciting aspects of our job is **listening to you**, our client, in how you envision this project, and transforming your ideas into realities. This can only be accomplished by effectively working together with you. Most of our clients are repeat, which is a good indication of the services we provide. The main reason we have been able to maintain this relationship is because **we listen to their needs, and then deliver**. We encourage you to speak with our references because we feel this is the best way that our abilities can be conveyed to you.

We love what we do, so we care about the results you get. We are ready to begin **immediately** and can work to your schedule to get this project designed and constructed. Thank you for reviewing our submission and considering McKinley Architecture and Engineering for your project. We are excited about the possibility of working with you again.

Personal Regards,



Ernest Dellatorre  
Director of Business Development  
McKinley Architecture and Engineering  
(304) 340-4267 x115  
edellatorre@mckinleydelivers.com



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# Corporate Information

## Firm History

Founded in 1981, McKinley Architecture and Engineering is a multi-discipline full service A/E firm, offering comprehensive professional services in Architecture, Engineering, Energy Efficient and Sustainable (LEED) Design, SAP Evaluation, Commissioning, Construction Contract Administration, and more. We have a broad range of skill and experience for projects involving governmental, sustainable and energy efficiency, commercial, office, hospitality, and education to name a few. Over the years, our firm won multiple State and National awards and recognitions for our designs. McKinley has made the 2020, 2021, and 2022 Inc. 5000 lists, the most prestigious ranking of the nation's fastest-growing private companies! We have also made it on PSMJ's 2022 Circle of Excellence as one of the top-performing Architecture and Engineering firms in the nation!



## Firm Information

Ernest Dellatorre  
Director of Business Development

Tim Mizer, PE, RA, QCxP  
Director of Engineering Services

Patrick J. Rymer, AIA, ALEP  
Director of Architectural Services

## Date of Incorporation

July 1, 1981  
Wheeling, West Virginia

## Professionals on Staff

Architects  
Engineers  
Arch./Eng. Designers  
LEED AP BD+C  
Historic Preservationist  
Construction Admins.  
HVAC Commissioning Provider  
Interior Designer  
SAP Evaluator  
ALEP (CEFP)  
REFP

## Locations

32 Twentieth Street  
Suite 100  
Wheeling, WV 26003  
P: 304-233-0140  
F: 304-233-4613

129 Summers Street  
Suite 201  
Charleston, WV 25301  
P: 304-340-4267

5000 Stonewood Drive  
Suite 220  
Wexford, PA 15090  
P: 724-719-6975

## Credentials

McKinley Architecture and Engineering is a member of the following organizations:

A4LE (formerly CEFPI), ACI International, AIA, ASCE, ASHRAE, ASPE, AWI, BOCA, NCARB, NFPA, WVEDC, and more

## Follow Us

[www.McKinleyDelivers.com](http://www.McKinleyDelivers.com)

[www.Facebook.com/McKinleyDelivers](https://www.Facebook.com/McKinleyDelivers)

[www.Linkedin.com/company/McKinleyDelivers](https://www.Linkedin.com/company/McKinleyDelivers)

Instagram: @McKinleyDelivers



# Project Approach

The work to be performed by your design team is very clear; to evaluate, prioritize and design within budget and schedule to meet the needs of the WV Department of Administration, General Services Division, as well as the tenants of Building 37: the WV Department of Environmental Protection, the WV Public Employees Insurance Agency, and the WV Department of Administration - Real Estate Division. We use and welcome your input throughout the project.

First and foremost we can state that our large professional staff of **40 employees** will devote whatever time is necessary to provide you with a successful project. If our project team is chosen for this project; they are available to start immediately upon our being selected, and will provide the necessary hours to complete your project on time. In the past 42 years we have extensive experience with similar projects. We will meet all of your Goals and Objectives!

Our Design Approach for a renovation/upgrade project is very different than how we approach new construction. In new construction, where you are starting from scratch, most of the time is spent in documenting the design approach and scope of the work. But in renovation projects, there is another layer of complexity because of the fact that you have existing space and systems that you need to work into the design, and each of those bring additional constraints to the final solution. Fortunately, McKinley Architecture and Engineering has been a leader in renovation projects and has creatively solved many of the issues that may come up in the design of this project. Our team of Architects, Engineers, Designers, and specialists will research all of the available documents on the space, and study the existing structure and systems prior to sitting down with your staff to define the parameters for the final design. This method allows our designers to know the conditions before they offer potential design solutions.

To start your project, a kickoff meeting will be held at Building 37 with the General Services Division, representatives for the 3 building tenants, along with all our design professionals. From this meeting, the Owners Project Requirements will be defined and documented, to be used as a guideline through the design phases. We will verify the existing conditions of the facility through the review of the existing conditions, existing drawings if available, and with discussions with you. From our overall facility survey, we will use all this information to produce a full reporting of the current conditions, with our recommendation of rework to best fit the present needs of these buildings, and will create floor plans of your existing buildings. We will then use all this information to design the windows, HVAC, roof, and exterior envelope renovations/upgrades. These systems will best fit the standards of today's design and energy efficiency standards, and will meet all current building codes.

Over the years, McKinley Architecture and Engineering has designed hundreds of projects which involve HVAC, roof, envelope, and windows assessments, renovations, replacements, upgrades, and/or repairs, which gives us invaluable experience to utilize within your project, whether it is working with alternate suppliers or evaluating and recommending the best HVAC concepts. During the past 42 years, our expertise has been called upon many times upgrading outdated and antiquated machinery, bringing the systems and load requirements up to compliance, designing energy efficient systems, designing safety and security windows, scheduling for phased construction around occupied areas of the projects, and even evaluating and correcting errors in existing design (pipe sizing, piping material errors, control valving, equipment accessibility, etc). We currently support clients on a number of significant renovation projects that illustrate this ability.

# Project Approach

Our design team will strive to achieve the **best overall indoor air quality** in the building; studies have shown that it not only has health benefits to the workers, but also enhances the environment. To achieve this our team pays careful attention to the **exterior enclosure** to eliminate water penetration and minimize air leakage, specifies systems and materials that limit the pollutants from entering the building, and our **HVAC engineers** control the quality and quantity of fresh air into the building maximizing the air quality and energy efficiency. We offer thoughtful design options that enhance the space, protect the environment, and meet the budget constraints.

The **timeline** of any project, especially an **HVAC project**, is **critical**. Whereas almost all systems and equipment have a multi-month lead time, potential issues could be lead times for hardware and equipment, or compatibility with any existing systems. McKinley Architecture and Engineering has a **great working relationship with various HVAC suppliers**, which has helped us reduce the response time for our recent projects. A **positive relationship with the installing contractors is also needed**, and we have worked with all of the major HVAC contractors in the area. Therefore, we know we can successfully complete your project on time and budget.

Our HVAC redesign will include any required Building Load Calculations of the renovation space for accurate sizing of new equipment. This will be used for the evaluations of the existing spaces and also to include any additional new conditions as described by the Building 37 personnel. McKinley Architecture and Engineering can also work with the Contractors and Testing Adjusting & Balancing (Rebalancing) Company to verify proper system operation. The purpose is to verify all systems and equipment are operating as intended, and to the designed efficiency.

Our first action for any **roof renovation** is to examine the entire roof with our architects and engineers. This will help us in determining the root cause of any deterioration, possible damages, and any water infiltration. Roofing projects require a concise mapping of the existing roofing system including existing materials condition (above and below the roof line), mapping of the building's roof penetrations, and observation of the performance of the rain water collection system. How does it respond to a 100 year rain event; is any action/correction necessary to control; does the current assembly meet all current building code standards? Present unknowns for your roof may include: incorrect slope and drainage, possible sealant and flashing condition defects, deterioration of existing roof deck, degradation of the roof structure, and damage to interior building components due to previous water infiltration.

Once the problems are forensically understood, the next step is to develop possible solutions. It will be important to sit down to review the various alternatives and propose the best method to solve the main problems; the problems that must be immediately addressed and prioritized thereafter. For example, existing roof systems without adequate slope and proper drainage, and/or leaking can also cause significant wood rot, mold, mildew, algae and other such growths, which are unhealthy for the environment for the employees. Any pooling water issues can provide incubators for mosquitoes, etc. and needs addressed. Another safety factor which should be considered is, the design of the roof systems should include analysis to determine if secondary emergency roof drainage is warranted to prevent structural failures from blockage of the primary roof drainage system. Modifications to drainage system and existing mechanical equipment and service feeds may also be required to achieve code required minimum slopes for roof replacement. We will also look at safety railing.



# Project Approach

Some of our projects replaced roofs that were beyond their life span, were leaking, had ponding water, were sliced and damaged, had inadequate roof slope, had inadequate drainage systems, and many caused water damage throughout the interior and/or exterior of the building - even the smallest pinhole can allow significant water infiltration. Our designs replace the roofing system, added safety rails, fix the leaks, create proper water flow and drainage, meet the current code with compliant systems which increased the building's safety, and are lower maintenance.

With many buildings, the structures are solid but the **exterior** may be showing signs of damage, wear, air infiltration, and water damage. Many of these projects started with a roof leak, which caused damaged within the envelope and the windows. Sometimes these areas of concern have progressed to the point of needing immediate attention. McKinley has experience in designing and correcting damaged exterior structures, and revitalizing aging structures.

Our first action for any **exterior envelope renovation** is to examine the entire building with our architects and engineers. This will help us in determining the root cause of any deterioration, possible damages, cold air and water infiltration. Potential issues may include (but aren't limited to): degradation of the exterior finish, sealant and flashing defects, weather related damages, window wear-and-tear, and the age and condition of the structure. We can also address any additional important factors you might have, which might include life-safety, energy efficiency, durability, improving aesthetics, etc.

In addition to the exterior envelope, McKinley has extensive experience with providing drawings and specifications for **windows replacements**. This includes windows that were renovated to ensure building security, compliance with current building codes, energy efficiency, acoustics, as well as force protection. Our team will strive to produce not only safe and secure windows, but also aesthetically pleasing designs.

We have a **LEED Accredited Professionals** and **LEED Accredited Professionals specializing in Building Design & Construction** who can help choose **energy efficient solutions** such as fenestration (**windows**) to achieve a quality thermal envelope and controlled introduction of daylighting (*studies have proven that only 7%-10% window to wall ratio is needed to achieve quality daylighting*), **energy efficient HVAC systems**, locally sourced materials, and much more.

You appropriately recognize how **codes, and state / federal regulations** are important to a successful project. Our professional's design within these codes daily. All documents will be prepared with the current State Building Code and State Fire Code as well as all State and Federal Codes, Regulations, and Ordinances.

With our **vast HVAC, roofs, windows, and exterior envelope renovation experience, understanding of codes, and our great working relationship with various state agencies**; we are confident that we have the talent and technology needed to make these projects successful. Also, as your **MEP Engineers/Architects and single point of responsibility**, you can be reassured of **smooth project delivery and sensitivity to all relevant guidelines in our state. We will meet your goals and objectives.**

# HVAC Commissioning

On staff, we have a **Qualified Commissioning Process Provider** who can provide independent commissioning services, not only on new facilities but also existing facilities.

Your project manager is **Tim E. Mizer, PE, RA, QCxP**. His **QCxP accreditation** was earned at the University of Wisconsin-Madison. He has been formally trained to fully understand how integrated HVAC systems function and how systems interface with others to run your building efficiently, and has a comprehensive knowledge of the full American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE) Commissioning Process. From this, we commission the project to ensure everything is working properly, and to teach the maintenance personnel how to use the machinery and gives them all the correct manuals.



**For existing buildings**, the commissioning provider can troubleshoot the existing systems to determine the fault of non-performing equipment or the reasons for uncomfortable spaces.

For new buildings and their systems, commissioning entails the review of the design plans, verifying the installations, and the oversight of the testing of the mechanical and electrical systems to ensure the owner is getting the type and quality of product expected.



# Sustainable “Green” Design

**B**uildings designed today will need to meet the demands of the future; McKinley Architecture and Engineering identifies the changes necessary in the design of today and to meet these demands. This approach helps to retain the buildings’ long-term profitability and value, which achieves the buildings’ **sustainability**.

McKinley approaches ecological design from a business perspective, offering **proactive** solutions to complex problems such as **indoor air quality, energy efficiency, resource depletion, water quality**, and much more.

With **commercial and governmental project experience**, the McKinley Team can work alongside local designers to provide sustainable design and construction guidance. We also offer full architectural design services and guided design workshops on sustainable design issues.

**Our Philosophy** is to provide our clients with experienced leadership as well as state-of-the-art and **innovative** design expertise to accomplish the goals of your projects. **Function, economics** and **versatility**, in addition to the development of **strong aesthetic appeal**, are crucial elements in our design process.

We also believe that enhancement of the **physical environment in which each individual lives and works** should add significantly to the enjoyment of life. Our firm has dedicated our professional skills to attain these goals.



For a few recent sustainable awards, McKinley Architecture and Engineering was presented with the **2019 Governor’s Award for Leadership in Buildings Energy Efficiency** at the Innovation & Entrepreneurship Day at the Capitol! We were recognized for our commitment to sustainability and energy efficiency in the design of **office buildings**, schools, multi-use facilities, and a wide variety of commercial, industrial, **government**, and historical structures.

Our designs have also won **West Virginia Department of Environmental Protection’s Clean Energy Environmental Award**, **2 Black Bear Awards for the**

**Highest Achievement** for the WV Sustainable Schools program, **2 U.S. Department of Education Green Ribbon Schools**, as well as a **Gold Medal Green Building Award** by Building of America, among others!

We also have a project that is **Collaborative for High Performance School (CHPS) Registered**; the United States’ first green building rating program designed for schools.

Furthermore, we have designed 4 projects listed on the **U.S. Environmental Protection Agency’s ENERGY STAR** program: **Building 55: West Virginia State Office Building in Logan, Hilltop Elementary School, Cameron Middle/High School, and Johnson Elementary School**. To receive an ENERGY STAR, you need to perform in the top 25% of the most energy efficient projects in the program. **Building 55: West Virginia State Office Building is one of the most energy efficient buildings in the State**, and is in the **Top 5%** of all Energy Star rated buildings in the Country!



# Leadership in Energy and Environmental Design

**LEED® (Leadership in Energy and Environmental Design) Green Building Rating System™** developed by the U.S. Green Building Council (USGBC) is the nationally accepted standard for the design, construction, and operation of high performance green buildings ([www.usgbc.org](http://www.usgbc.org)).



In January 2001, our firm was the **first organization in West Virginia to join the USGBC**. No other WV firm joined until nearly 2 years later!



We have several **LEED Accredited Professionals** on staff, along with our skilled architectural/engineering team, who will efficiently and cost effectively achieve certification under this standard or we can guide you through the process in order to develop sustainability goals specific to your project.

We have **LEED® Accredited Professionals**, including 3 who are **specialized in Building Design & Construction**:

- John R. Jefferis, LEED AP, CCM, MPM
- Kurt A. Scheer, PE, LEED AP
- Christina Schessler, AIA, LEED AP BD+C
- Jeffrey W. Wessel, AIA, LEED AP BD+C
- Thomas R. Worlledge, AIA, LEED AP BD+C, REFP



Our **LEED Certified** Projects are (LEED Rating System in parentheses):

-  **Hilltop Elementary School** in Sherrard, WV (LEED for Schools 2.0)
  - The First LEED Certified School in the State of West Virginia!
-  **Building 55: West Virginia State Office Complex** in Logan, WV (LEED NC 2.2)

All of our current **LEED Registered** Projects are (LEED Rating System in parentheses):

- Bellann in Oakhill, WV (LEED EB O&M)
- Cameron Middle/High School in Cameron, WV (LEED for Schools 2.0)
- SMART Office in Williamson, WV (LEED CI)

The LEED AP Specialty Logos signify advanced knowledge in green building practices and specialization in a particular field.



The LEED AP BD+C designation that Thom, Christina, and Jeff have achieved represents specialization in commercial design and construction.

Thomas R. Worlledge, AIA, LEED AP BD+C, REFP has been a member of the USGBC since 2001; he was the first



**LEED Accredited Professional in the state of West Virginia!**  
As a professional trainer for the Sustainable Building Industries Council, he teaches other design professionals in the art of High Performance School design. He is also a Founder & Chairman of the Board for the US Green Building Council's West Virginia Chapter.

Christina Schessler, AIA, LEED AP BD+C has been a member of the USGBC since 2009. In 2012 she received



her Masters in Historic Preservation, so not only can she incorporate LEED "Green" aspects into new buildings; she can even incorporate energy efficient design into renovation/preservation projects. Twenty percent of a building's energy consumption is embodied in the existing physical structure itself!

The 'USGBC Member Logo' is a trademark owned by the U.S. Green Building Council and is used by permission.

**MCKINLEY**  
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# Construction Contract Administration & On-Site Representation

**Construction Contract Administrator Involved from the Beginning of the Design Phase**

**Observe the Construction Progress**

**Liaison between the Owner, Contractor, and Architects/Engineers**

**Responsible for All Construction Progress Meetings and Minutes**

**Monitor the Construction Schedule**

**Ensure that the Contractor is Following the Construction Documents**

**Verify Pay Application and Change Orders**

**Typically On-Site Once Every Two Weeks  
(Provide Additional On-Site Representation if Requested)**



Our **Construction Contract Administrators (CA)** have an extra responsibility than what most firms' Construction Administrators have; our CAs are a part of the design process from **Day 1** (they are not thrown into the project only when construction starts; they are here from the beginning), so they know the ins-and-outs of the project. Our CAs have an important role as being the **liaison between the Owner, Contractor, and Architect**. The primary objective of the Construction Contract Administration services is to ensure completion of work the way the client wants it - **as scheduled and as budgeted**. Our CAs evaluate the quality of the work to verify that it meets the level required by clients; in addition, they monitor the contractor's progress to ensure that they are following the Construction Documents. They observe the construction progress, are responsible for all construction meetings and minutes, and they verify pay application and change orders. The Construction Contract Administrator is typically on-site once every two weeks, but we can provide additional on-site representation if requested.



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# Design Team Flow Chart

## Project Manager / Point of Contact

**Thomas R. Worlledge, AIA, LEED AP BD+C, REFP**

## Architectural Team

**Thomas R. Worlledge, AIA, LEED AP BD+C, REFP**  
*Charleston Office Manager / Senior Architect / LEED Accredited Professional specializing in Building Design & Construction*

**Jeremiah Hatfield, AIA, NCARB**  
*Architect*

## Engineering Team

**Tim E. Mizer, PE, RA, QCxP**  
*Director of Engineering Services / Architectural Engineer / Architect / Qualified Commissioning Process Provider*

**Kurt A. Scheer, PE, LEED AP**  
*Senior Mechanical Engineer / LEED Accredited Professional*

**Alan M. Gaber, PE**  
*Senior Electrical Engineer*

**Scott D. Kain**  
*Engineering Production Manager / Senior Plumbing Engineering Designer*

**Michael J. Clark Sr.**  
*Senior Electrical Engineering Designer*

**Richard G. Berger**  
*Senior Mechanical Engineering Designer*

**David A. Ullom**  
*BIM Coordinator / Fire Protection Engineering Designer*

## Construction Contract Administration

**Robert E. Smith**

\* McKinley Architecture and Engineering is willing to dedicate more professionals if they are needed, including more Architects, Designers, LEED Accredited Professionals, Construction Contract Administrators, etc.

# Thomas R. Worledge, AIA, LEED AP BD+C, REFP

## Architect / Specialized LEED Accredited Professional



### EDUCATION:

Virginia Polytechnic Institute & State University  
Master of Architecture - 1992

Fairmont State College, School of Technology  
B.S. Architectural Eng. Tech. - 1983

### PROFESSIONAL AFFILIATIONS AND REGISTRATIONS:

#### Registered Architect in:

West Virginia  
Ohio  
Pennsylvania  
Tennessee  
Virginia

#### National Board Certification:

NCARB

#### President:

West Virginia Society of Architects

#### Member:

The American Institute of Architects  
US Green Building Council  
Sustainable Building Industries Council  
Recognized Educational Facility Professional (REFP)

#### Former voting member:

ASHRAE 90.1 International Energy Code  
Committee

### PROFESSIONAL EMPLOYMENT:

McKinley Architecture and Engineering  
Manager, Charleston Office  
Charleston, WV (2005 to present)

Proactive Architecture Inc.  
President  
Charleston, WV (1999-2005)

Silling Associates Inc.  
Vice President  
Charleston, WV (1992-1999)

TAG Architects  
Charleston, WV (1985-1990)

Alpha Associates Inc.  
Morgantown, WV (1983-1985)

### SUMMARY OF EXPERIENCE:

Mr. Worledge is a skilled **Architect** with over 35 years of experience, who has been the former President of the WV chapter of AIA, has received State and National design awards, and placed in National and Global design competitions. Unlike many architects who are new to green building and alternate energy, Thom started his career designing and building alternate energy systems, and was the first LEED Accredited Professional in West Virginia! He believe energy efficient design is simply good design practice. As a **LEED Accredited Professional specializing in Building Design & Construction (LEED AP BD+C)** and a **recognized sustainable design expert**, he has **2 LEED Certified** projects, **multiple LEED Registered** projects, several other energy-efficient projects, has articles published in State and National trade publications, was a featured speaker at multiple State and National conferences, served on the committee that set the ASHRAE 90.1 Standards for the International Energy Code, professionally teaches and trains other professionals in the art of High Performance Design, is a Founder & Chairman of the Board for the US Green Building Council's West Virginia Chapter, and much more.

### NOTABLE PROFESSIONAL ACHIEVEMENTS:

Building 55: WV State Office Complex in Logan (**LEED Certified / ENERGY STAR Rating of 91**)

West Virginia Department of Health & Human Resources' Ohio County Office Building fit-out / renovations

United States Postal Service - multiple projects throughout WV

West Virginia State Police - new Logan Detachment / Back-Up Data Center for the WVSP Headquarters

West Virginia State Police Academy - Renovations to Buildings A, B, and C, including exterior walls; New Buildings D and Multi-Purpose Building

West Virginia University - University Police Building renovations

Veterans Affairs Medical Centers - multiple VAMCs around WV and PA

Nicholas County Division of Homeland Security & Emergency Management - E-911 and Emergency Operations Center

Fairmont State University - College Apartments Complex (\$30M)

WVU Institute of Technology - Maclin Hall Dormitory in Montgomery

Charleston Enterprise Center renovation (WV AIA Design Award)

Williamson SMART Office (LEED Registered / Placemaker Award)

Natural Energy Design (N&D) Building (Placemaker Award)

Bellann in Oakhill, WV (LEED Registered)

Harrison County Schools - new Johnson Elementary School (**ENERGY STAR Rating of 90 / NCWV Media's Public Project of the Year / Collaborative for High Performance School registered**)

Marshall County Schools - new Hilltop Elementary (**LEED Certified / ENERGY STAR Rating of 86 / won multiple State and National Awards & Recognitions**)



**The West Virginia Board of Architects**

certifies that

**Thomas Worlledge**

is registered and authorized to practice  
Architecture in the State of West Virginia.

In testimony whereof this certificate has been issued  
by the authority of this board.


Certificate Number



*The registration is in good standing until June 30, 2023.*



Emily Papadopoulos  
Executive Director

\*Included is a copy of Thom Worlledge's (*lead architect*) Registration & Authorization Certificate to provide Architectural Services in West Virginia (Certificate Number ). In addition, a listing of all the professionals' degrees and licenses are found on their resumes. *We would be happy to provide copies of licenses of other professionals, and our Firm's licenses, if you wish to see them.*

# Jeremiah Hatfield, AIA, NCARB

Architect

## EDUCATION:

Louisiana State University  
Bachelor of Architecture - 1999

## PROFESSIONAL AFFILIATIONS AND REGISTRATIONS:

### Registered Architect in:

West Virginia  
Kentucky  
Michigan  
Virginia

### National Board Certification

## PROFESSIONAL EMPLOYMENT:

McKinley Architecture and Engineering  
Architect  
Charleston, WV (2021 to present)

Adkins Design, Inc.  
Architect / Project Manager  
Charleston, WV (2009-2021)

## SUMMARY OF EXPERIENCE:

Mr. Hatfield values clients and enjoys assisting them with their projects at all levels of design and construction and with all building types, including residential, governmental, educational, commercial, offices and hospitality projects. Jeremiah has over 15 years of experience with CAD, Sketchup and Microsoft Office. His skills also include Adobe Illustrator, Drafting, Revit, Interior Design, Adobe Photoshop, SolidWorks, Project Management, and Adobe Creative Suite. Jeremiah has completed InDeed Assessments, which provides skills tests that are not indicative of a license or certification, or continued development in any professional field. In these tests, he ranked Highly Proficient in "Attention to Detail" (identifying differences in materials, following instructions, and detecting details among distracting information) as well as "Following Directions" (following multi-step instructions), which are an asset to an **Architect**.

## NOTABLE PROFESSIONAL EXPERIENCES:

### McKinley Architecture and Engineering

WV Lottery Building roof  
Ft. Henry Building renovations & restoration  
Fayette County Schools - Institute of Technology renovations  
Fayette County Schools - Meadow Bridge School PK-12  
Fayette County Schools - Midland Trail High Gym renovations  
Fayette County Schools - Oak Hill High Gym renovations  
Fayette County Schools - Valley PreK-8 renovations  
Fayette County Schools - Outdoor Classrooms  
Fayette County Schools - Windows & Doors replacements  
Hancock County Schools - New Manchester Elementary addition  
Hancock County Schools - Weirton Middle addition  
Summers County Schools - HS/MS addition & renovations  
Wayne County Schools - ESSERF Work  
Wayne County Schools - Window replacements  
Wetzel County Schools - Paden City Elementary Multipurpose Addition  
Wood County Schools - Pre-Bond Services

### Adkins Design, Inc.\*

Mr. Hatfield had been exposed to most aspects of design including Programming and Pre-design, Schematic Design, Design Development, thru the completion of Construction Documents and punch lists during Construction Administration.

*\*previous work experience with a firm other than McKinley Architecture and Engineering*

# Tim E. Mizer, PE, RA, QCCxP

Architectural Engineer / Architect / HVAC Commissioning Provider

## Director of Engineering Services

### EDUCATION:

Kansas State University  
B.S. Architectural Engineering - 1983

University of Cincinnati  
Architecture

### PROFESSIONAL AFFILIATIONS AND REGISTRATIONS:

**Registered Engineering in:**  
West Virginia  
Ohio

**Registered Architect in:**  
Ohio

**Qualified Commissioning Process  
Provider**

### PROFESSIONAL EMPLOYMENT:

McKinley Architecture and Engineering  
Director of Engineering Services  
Architect / Engineer / Commissioning  
Wheeling, WV (1995 to present)

M.C.C. Engineering  
Director of Design  
Columbus, Ohio (1988-1995)

Schooley Caldwell and Associates  
Electrical & Mechanical Design  
Columbus, Ohio (1986-1988)

Mizer Design  
Free Lance Architectural Engineering Design  
Columbus, Ohio (1985-1986)

Envirotek, Inc.  
Drafting and Electrical & Mechanical Design  
Raleigh, NC (1984-1985)

### SUMMARY OF EXPERIENCE:

A very talented and unique professional who is registered **both** in **engineering** and **architecture** which has provided him with a total understanding of the engineering components and the process necessary for integrating architectural design and building systems. Furthermore, as a **Qualified Commissioning Process Provider**, he has been **formally trained to fully understand how integrated HVAC systems function and how systems interface with others to run your building efficiently. He understands that the HVAC system's performance can reduce operating and maintenance costs, improve the comfort of a building's occupants, and extend the life of equipment.** He joined McKinley Architecture and Engineering in 1995, and has over 35 years of experience. As the **Director of Engineering Services**, Mr. Mizer's presence is a key to the design procedures required to coordinate the functionality of the engineering systems into the aesthetics of a building space.

### NOTABLE PROFESSIONAL EXPERIENCES:

Building 55: WV State Office Complex in Logan (LEED Certified)

Building 34: WV State Office Complex in Weirton

WVDHHR's Ohio County Office fit-out / renovations, including HVAC

West Virginia Department of Transportation, Division of Highways -  
Buckhannon & Moundsville Headquarters HVAC

West Virginia Army National Guard - multiple projects

United States Postal Service - worked on a multitude of Post Offices  
in WV & PA, including dozens of HVAC projects (many involved  
Commissioning)

West Virginia State Police - dozens of renovations, additions, and new  
detachments, including multiple HVAC modernization projects

The Towers Building renovations, including HVAC

Steel Valley Regional Transit Authority renovations

Cabela's Eastern Distribution Center

Carenbauer's Distribution Warehouse

City of Moundsville - Municipal/Public Safety Building

Mattern Tire Service Center

WVU State Fire Training Academy

Wheeling Island Fire Station

Raleigh County Emergency Services Authority

Nicholas Co. Division of Homeland Security & Emergency Management

West Virginia University - multiple renovations, additions, and new  
buildings, including multiple HVAC projects

West Virginia School Building Authority - Dozens of HVAC projects  
State-Wide, as well as new construction and renovations

# Kurt A. Scheer, PE, LEED AP

Senior Mechanical Engineer / LEED Accredited Professional

## EDUCATION:

Penn State University  
B.S. Architectural Engineering - 2001

## PROFESSIONAL AFFILIATIONS AND REGISTRATIONS:

**Registered Engineering in:**  
Pennsylvania  
West Virginia

**Member:**  
US Green Building Council

**ASHRAE**

**ASPE**

## PROFESSIONAL EMPLOYMENT:

McKinley Architecture and Engineering  
Senior Mechanical Engineer  
Wexford, PA (2020 to present)

Allen & Shariff Corporation  
Senior Mechanical Engineer  
Pittsburgh, PA (2018-2020)

BDA Engineering, Inc.  
Senior Mechanical Engineer  
Homestead, PA (2006-2018)

Allen & Shariff Corporation  
Mechanical Engineer  
Pittsburgh, PA (2004-2006)

LLI Technologies, Inc.  
Mechanical Engineer  
Pittsburgh, PA (2001-2004)

## SUMMARY OF EXPERIENCE:

Mr. Scheer is a **Mechanical Engineer** with 20 years of experience in the Architectural Engineering industry with a focus on mechanical systems design. In addition, Kurt has overseen electrical, plumbing, and fire protection engineering for all his projects for 15 years. Market sectors such as hospitality, higher education, and commercial office are areas where he has significant experience. Additionally, Mr. Scheer has experience with **LEED Certified** projects and energy modeling, and he will design an energy efficient HVAC system that will meet all of your goals and objectives.

## NOTABLE PROFESSIONAL EXPERIENCES:

City of Moundsville - Municipal/Public Safety Building

Tyler County Commission - Judicial Annex Building

Brooke County Judicial Courthouse renovations

Nicholas County Division of Homeland Security & Emergency Management - E911 and Emergency Operations Center

Fort Henry Building - Fourth Floor office build-out

City of Weirton - Park Drive / Three Springs Drive Development

YWCA Renovations

Pittsburgh City County Building - Booster Pump

Summit Building office renovations

Pittsburgh Laborers Union 258

Carnegie Robotics - Third Floor renovation

Clopay mechanical upgrades

Light of Life Rescue Mission

Fayette County Schools - new Meadow Bridge School PK-12 School

Harrison County Schools - Gore Elementary School build-out renovation / addition

Harrison County Schools - new Lost Creek Elementary School

Ohio County Schools - Warwood School renovations

Ohio County Schools - Wheeling Park High School Athletic Complex

Ohio County Schools - Woodsdale Elementary School cafeteria addition & renovations

# Alan M. Gaber, PE

## Senior Electrical Engineer

### EDUCATION:

Ohio Northern University  
B.S. Electrical Engineering  
with a Computer Science Option - 1986

### PROFESSIONAL AFFILIATIONS AND REGISTRATIONS:

#### Registered Engineer in:

Ohio  
Pennsylvania

### PROFESSIONAL EMPLOYMENT:

McKinley Architecture and Engineering  
Electrical Engineer  
Wexford, PA (2022 to present)

Stantec Architecture  
Electrical Engineer  
Butler, PA (2018-2022)

Penn-Ohio Electrical Contractors  
Electrical Engineer  
Masury, OH (2013-2018)

HHSDR Architects & Engineers  
Electrical Engineer  
Sharon, PA (1995-2013)

Sturgeon Engineering, Inc.  
Engineer-in-Training  
Grove City, PA (1987-1995)

United Engineers & Constructors  
Engineer-in-Training  
Philadelphia, PA (1986-1987)

### SUMMARY OF EXPERIENCE:

Mr. Gaber is an **Electrical Engineer**, who for over 36 years, has a broad range of electrical and professional experiences designing building systems. He has experience working collaboratively with others to research and identify the clients' needs, and successfully meeting those needs. Alan takes pride in providing designs that are concise, efficient and within the client's budget. Each phase of his career has exposed him to different aspects of electrical design for the building construction industry, from utility company commercial service design, to commercial, industrial & institutional building design, and electrical construction management. Mr. Gaber's experiences also include K-12 & post secondary education, municipal/civic, personal care/senior living, and other sectors of business. His electrical design qualifications include lighting, power distribution, emergency/standby power, onsite generators, telephone/sound/communications, data communications, master clock/program, audio/video, fire alarms, security alarms, video surveillance, electric access, and more.

### NOTABLE PROFESSIONAL EXPERIENCES:

City of Moundsville - Municipal/Public Safety Building

Brooke County Judicial Courthouse renovations

NOAA renovations

YWCA renovations

Ft. Henry renovations-restoration

Fayette County Schools - new Meadow Bridge School PK-12

Fayette County Schools - Midland Trail High gym renovations

Fayette County Schools - Oak Hill High gym renovations

Fayette County Schools - Valley PreK-8 renovations

Fayette County Schools - Institute of Technology renovations

Hampshire County Schools - new Central Elementary School

Hancock County Schools - Weir High gym addition

Ohio County Schools - Elm Grove Elementary renovations

Ohio County Schools - Warwood School renovations

Ohio County Schools - Wheeling Middle addition & renovations

Ohio County Schools - Woodsdale E.S. addition & renovations

Summers County Schools - Hinton Elementary cafeteria

Summers County Schools - Talcott Gym renovation

# Scott D. Kain

## Engineering Production Manager / Senior Plumbing Designer

### EDUCATION:

Technology Education College /  
Ohio State University  
Associates in Mechanical Design - 1996

### PROFESSIONAL EMPLOYMENT:

McKinley Architecture and Engineering  
Engineering Production Manager  
Engineering Designer  
Wheeling, WV (2001 to present)

HAWA Inc.  
Mechanical Designer  
Columbus, OH (1998-2001)

Autotool Inc.  
Engineer  
Columbus, OH (1995-1998)

### SUMMARY OF EXPERIENCE:

Mr. Kain, our Engineering Production Manager, is an accomplished engineering designer who has performed in all the engineering trades we provide; specializing in electrical, plumbing, and fire protection. He has been utilized for various McKinley projects that needed additional mechanical, structural, and architectural manpower. In addition, Mr. Kain has also provided 3D renderings, to aid in business development, during his long tenure at McKinley Architecture and Engineering.

### NOTABLE PROFESSIONAL EXPERIENCES:

Building 55: WV State Office Complex in Logan (LEED Certified)  
Building 34: WV State Office Complex in Weirton  
West Virginia Health & Human Resources Wheeling Office renovations  
WVDRS Wheeling District's new office space fit-out  
West Virginia Army National Guard - multiple projects State-wide  
United States Postal Service - multiple projects / new & renovations  
West Virginia State Police - multiple projects State-wide, including renovations, additions, and new construction  
The Towers Building renovations  
City of Moundsville - New Municipal Public Safety Bldg  
Tyler County Commission - Judicial Annex & Sheriff's Office  
West Virginia University - University Police Building fit-out  
West Virginia University - new State Fire Training Academy  
Wheeling Island Fire Station  
Brooke Co. Commission - Judicial Center & Historic Courthouse  
Belmont County Commission - Courts & Offices build-outs  
VAMC Beckley  
WVU IOT - Maclin Hall & Conley Hall renovations  
Panhandle Cleaning & Restoration warehouse/garage/office building  
Cabela's Eastern Distribution Center  
Carenbauer's Distribution Warehouse  
Steel Valley Regional Transit Authority  
Wheeling Island Hotel•Casino•Racetrack multiple projects  
Orrick's Global Operations Center  
Millennium Centre Technology Park

# Michael J. Clark Sr.

## Senior Electrical Engineering Designer

### EDUCATION:

Eastern Gateway Community College  
A-ATS Electro-Mechanical Engineering - 2012

Jefferson Community College  
A-ATS Electrical Trade Technology - 2003

### PROFESSIONAL AFFILIATIONS AND REGISTRATIONS:

Certified in SMAW Weld Process & Basic  
Welding and Applications 2002

West Virginia Journeyman License

Ohio Fire Alarm License

OSHA 30 Certified

### PROFESSIONAL EMPLOYMENT:

McKinley Architecture and Engineering  
Electrical Engineering Designer  
Wheeling, WV (2012 to 2018, 2020 to present)

Arcelor Mittal  
Maintenance Technician Electrician  
Weirton, WV (2012)

M.J. Electric  
Journeyman Electrician  
Iron Mountain, MI (2010-2012)

Erb Electric Company  
Journeyman Electrician  
Bridgeport, OH (2009-2010)

Bechtel Group Inc.  
Journeyman Electrician  
Glendale, AZ (2009)

Cattrell Companies, Inc  
Journeyman Electrician  
Toronto, OH (1998-2009)

### SUMMARY OF EXPERIENCE:

Mr. Clark is an Electrical Engineering Designer and a Certified Journeyman Electrician with over 25 years of industrial, commercial and residential experience. He is knowledgeable in all areas of the national electrical code and excels in analyzing and solving problems with various electrical controls and systems. Mr. Clark brings a cross-trained background to our projects, being skilled in both the design and the construction ends which gives him a unique ability to understand all aspects of a project. He is also adept in performing electrical and mechanical installations, maintenance and repairs in plant facilities. Furthermore, he is seasoned as an Electrical Foreman and Superintendent on both commercial and industrial job sites. His key skills include Electrical Systems & Controls, Installations & Maintenance, Electromechanical Repairs, Blueprints & Schematics, Generators & Transformers, Switches & Circuit Breakers, Electrical Code, Safety & QA, Wiring Diagrams, Troubleshooting, Testing Instruments, Motors & Conduit, CAD-2D/3D, Welding, & Residential construction. Mike has designed for similar renovation projects, and your project might need his design for electrical system improvements, powering of all new mechanical equipment, electrical distribution, updated controls, switch gears, energy efficiency, upgrades to power feeds, access control, safety & security alarm systems, and more

### NOTABLE PROFESSIONAL EXPERIENCES:

Building 55: WV State Office Complex in Logan (LEED Certified)  
WVDRS Wheeling District's new office space fit-out  
Carenbauer Wholesale Corporation warehouse addition/renovations  
Bennett Square office build-out  
Ft. Henry Building - multiple tenants fit-outs  
Holiday Inn Express Hotels - on-call contract / multiple projects  
Wheeling Island Hotel•Casino•Racetrack - multiple projects  
City of Steubenville - 5 Parks Lighting and Security project  
Franciscan University OP#1 Multi-tenant Retail Building  
Franciscan University OP#2 Office / Retail Building  
Brooke County Schools - Several Projects County-Wide  
Grant County Schools - Maysville Elementary renovations & Union Educational complex addition/renovations  
Hampshire County Schools - Animal Vet Science Center  
Hancock County Schools - New Manchester Elementary addition/renovations, Oak Glen High renovations, Senator Rockefeller Career Center HVAC renovations, Weir High renovations, & new Weirton Elementary, and many more additions/renovations  
Harrison County Schools - new Johnson Elementary, Gore Elementary build-out, and new Lost Creek Elementary  
The Linsly School - Banes Hall addition/renovations

# Richard G. Berger

## Senior Mechanical Engineering Designer

### EDUCATION:

CCAC of Allegheny County  
Concentration: HVAC

### PROFESSIONAL AFFILIATIONS AND REGISTRATIONS:

Pennsylvania Sheet Metal Journeyman License

Volunteer Fireman (retired)

### PROFESSIONAL EMPLOYMENT:

McKinley Architecture and Engineering  
Senior Engineering Designer  
Wexford, PA (2020 to present)

CJL Engineering  
Lead HVAC Senior Mechanical Designer  
Moon Township, PA (2019-2020)

Lovorn Engineering  
Lead HVAC Senior Mechanical Designer  
Blawnox, PA (2013-2019)

Stantec Corporation (formerly Burt Hill)  
Lead HVAC Mechanical Designer  
Butler, PA (1997-2013)

Peter F. Loftus division of Eichleay Engineers  
Lead HVAC Mechanical Designer  
Pittsburgh, PA (1989-1997)

SSM Industries, Inc.  
Sheet Metal Professional Licensed Journeyman  
Pittsburgh, PA (1979-1989)

### SUMMARY OF EXPERIENCE:

Mr. Berger is a mechanical engineering professional with over 35 years of experience in HVAC design. His skills include Revit, AutoCadd, Microstation CADD, HVAC duct work and piping design, HVAC calculations, project management, and HVAC and piping field experience. Rich is a Professional Sheet Metal Journeyman license Sheet Metal Workers Local 12. Have designed for healthcare, K-12 schools, universities, high rise commercial, lab renovations and hotels. He will help in the mechanical assessment for the initial facility visits to fully determine the scope of work, as well as designing, specifications, equipment selection using various manufacturer's selection software, heating/cooling loads, shop drawing submittals, and more.

### NOTABLE PROFESSIONAL EXPERIENCES:

Summit Building renovations

City of Moundsville - Municipal/Public Safety Building

Tyler County Commission - Judicial Annex Building

Brooke County Judicial Center Courthouse

Main Street Bank - Toronto

Williamson Hospital mechanical renovations

YWCA Renovations

Fayette County Schools - NEW Meadow Bridge School PK-12  
School & School Based Health Clinic

Fayette County Schools - Oak Hill High gym renovations

Fayette County Schools - Valley PreK-8 renovations

Fayette County Schools - Institute of Technology renovations

Hampshire County Schools - Capon Bridge E.S. gym addition

Hancock County Schools - Weir High mechanical upgrades

Harrison County Schools - Gore Elementary School build-out

Ohio County Schools - Wheeling Middle renovations

Steubenville City School District - Steubenville High School  
commons renovations

Wetzel County Schools - Paden City E.S. Multipurpose addition

Wetzel County Schools - Short Line School HVAC

Wirt County Schools - County-Wide ESSERF Projects



# David A. Ullom

## BIM Coordinator / Mechanical Engineering Designer

### EDUCATION:

Fairmont State University  
B.S. Mechanical Engineering Technology - 2011

Pierpont Community and Technical College  
Associates Degree in Applied Sciences:  
Drafting and Design - 2011

### PROFESSIONAL EMPLOYMENT:

McKinley Architecture and Engineering  
BIM Coordinator  
Engineering Designer  
Wheeling, WV (2019 to present)

Kennametal Inc.  
Sales Engineer (2016-2019)  
Applications Engineer (2012-2016)  
Latrobe, PA

Marion County Assessors Office  
Map Developer  
Fairmont, WV (2010-2012)

### SUMMARY OF EXPERIENCE:

Mr. Ullom, our BIM Coordinator, is a results-driven individual who prioritizes safety, cost-effective solutions, and exceeding customer expectations. He is proficient in Autocad, Inventor, and Revit software. David also has experience as a Sales Engineer, Applications Engineer, and Map Developer, which provides an unique understanding for problem solving. Mr. Ullom will assist in the evaluation and designs of all of the mechanical systems (and possibly plumbing and fire suppression systems) in your facility.

### NOTABLE PROFESSIONAL EXPERIENCES:

General Services Administration - Social Security Administration's  
Wheeling, WV Office

Summit Renovations

City of Moundsville - Municipal/Public Safety Building

Belmont County Divisional Courts renovations

Brooke County Judicial Courthouse renovations

Jefferson County Jail Renovation

Jefferson County Justice Center renovations

Tyler County Commission - Judicial Annex

Trinity Health System - Crisis Rehabilitation Unit

City of Weirton - Park Drive / Three Springs Drive Development

Main St. Bank - Toronto Branch

Ft. Henry Building renovation

YWCA Renovations

Fayette County Schools - new Meadow Bridge K-12 project

Hampshire County Schools - several projects County-wide

Harrison County Schools - several projects County-wide,  
including renovations and additions

Ohio County Schools - several projects County-wide, including  
renovations and additions

Tyler County Schools - new Bus Maintenance Facility

Mid-Ohio Valley Technical Institute (MOVTI) renovations

Jefferson County (Ohio) - Steubenville High commons and  
kitchen renovation

# Robert E. "Bob" Smith

## Construction Contract Administrator

### EDUCATION:

University of Pittsburgh  
M.S. Industrial Engineering - 1989

United States Air Force Academy  
B.S. Behavioral Science /  
Human Factors Engineering - 1983

### PROFESSIONAL AFFILIATIONS AND REGISTRATIONS:

#### Board Member:

Indian Creek School District (elected in 2009)

#### Instructor:

Mechanical Engineering, Eastern Gateway  
Community College

#### President:

Mingo Business Association (2007 to present)

#### Commander:

American Legion Post 351 (2008 to present)

### PROFESSIONAL EMPLOYMENT:

McKinley Architecture and Engineering  
*Construction Contract Administrator*  
Wheeling, WV (2009 to present)

Jefferson County Regional Planning Commission  
*Regional Planner*  
Steubenville, OH (2008-2009)

Edison Local School District  
*Director of Operations* (1999-2008)  
*Transportation Supervisor* (1998-1999)  
Hammondsville, OH

### MILITARY SERVICE:

Wright Patterson Air Force Base - Dayton, OH  
*Chief B-2, Block 20 Field Retrofit, \$300 million*  
B-2 Systems Program Office (1994-1996)  
*Team Leader, Process Improvement Technology*  
Armstrong Laboratory (1989-1994)

Randolph Air Force Base - San Antonio, TX  
*Chief, Test Construction Section*  
Occupational Measurement Center (1987-1988)  
*Quality Control Psychologist*  
Occupational Measurement Center (1985-1987)  
*Supervisor of Test Construction Team*  
Occupational Measurement Center (1983-1985)

### SUMMARY OF EXPERIENCE:

Mr. Smith has been a **Construction Contract Administrator** at McKinley Architecture and Engineering for 14 years. Bob is a self confident, articulate and highly motivated individual with superior interpersonal and teamwork skills. He has a plethora of experience in mid to upper level personnel management, advanced information systems integration, training, acquisition, contract management, transportation and maintenance, and quality control. He has 23 years of direct supervisory experience, as well as 13 years of documented success as an Air Force Officer. As your CA, Bob will observe the construction progress; is the liaison between the owner, contractor, and architect/engineer; will ensure that the contractor is following the construction documents; and more.

### NOTABLE PROFESSIONAL EXPERIENCES:

The Towers Building renovations, multiple phases including HVAC, windows, roofs, and exterior envelope

General Services Administration - Social Security  
Administration's Wheeling, WV Office

Follansbee City Building renovations

West Virginia Army National Guard - AASF#1 HVAC renovations

Belmont County Courts & County Offices

Jefferson County Courthouse renovations & Annex demo

Harrison County Courthouse renovations

Steel Valley Regional Transit Authority renovations

United States Postal Service - 2 Open-End IDIQ contracts /  
multiple projects

Cameron American Legion Exterior Renovations

Cabela's Eastern Distribution Center

City of Steubenville - multiple projects

Lincoln National Bank Building renovations

Fairmont State University's new 3 building "University Terrace"  
Student Housing Apartment Complex (\$30M)

Brooke County Schools - District-Wide Construction Program  
(\$36 million), including new buildings, and renovations

Grant Co. Schools - multiple projects, including Maysville  
renovations, & Union Educational Complex addition/renovations

Hancock Co. Schools - District-Wide Construction Program (\$56  
million), including new buildings, renovations, and additions

Marshall Co. Schools - Hilltop Elementary (LEED Certified),  
Cameron High (\$32 million / LEED Registered). District-Wide  
Construction Program (\$38 million), including new buildings,  
renovations, and additions



# West Virginia General Services

**CEOI 0211 GSD2300000004**

**Building 37 Window, HVAC, Roof,  
and Envelope Upgrades Project**

 **McKINLEY**  
ARCHITECTURE + ENGINEERING

# Roof Renovation Experience

Our firm has completed a **variety of projects**, which serve to illustrate the **creative and talented nature** of our professional design staff. The following examples are chosen to exhibit a partial assortment of **Roof Renovation** projects we have successfully completed:

A.I. Boreman Elementary School	Sistersville Elementary School
A.T. Allison Elementary School	SWVCTC - Williamson Campus
Artisan Center	Steel Valley Regional Transit Authority
Bennett Square	Steenrod Elementary School
Brooke Primary School	Steubenville Justice Center
Carenbauer's Distribution Warehouse	Stifel Fine Arts Center
Catholic Heritage Center	Sutton Elementary School
Center McMechen Elementary School	The Towers Building in Steubenville
Elm Grove Elementary School	Tucker County BOE Office
Flatwoods Elementary School	Tyler Consolidated MS/HS
Ft. Henry Building	Union Educational Complex
Grave Creek Mound Museum	USPS - multiple projects
Harrison County Courthouse	Vertical Farm
Jefferson Co. Dept. of Job and Family Services	Wagner Building
Jefferson County Justice Center	W&J College – Old Main Building
John Marshall High School	Washington Lands Elementary School
Lincoln National Bank	WLU – College Union Bldg.
Madison Elementary School (Ohio Co)	West Virginia Independence Hall
Madison Middle School (Boone Co)	WVNCC - B. & O. Building
Magnolia High School	WVNCC – Education Center
Martin Luther King, Jr. Recreation Center	WVSP – multiple projects
Maxwell Centre	WVU – Colson Hall
McNinch Elementary School	WVU – Stalnaker Hall
Middle Creek Elementary School	WVU IOT - Maclin Hall
New Manchester Elementary School	Wetzel Co. Center for Children and Families
Oak Glen High School	Wheeling Dollar Bank
Ohio County Justice Center	Whg Island Casino Fairgrounds
Orrick's Global Operations Center	Willow Glen Mansion
Presbyterian Church of Cadiz	Wilson Lodge pool room
Scott High School gym	<i>(and much more)</i>

# HVAC Replacement Projects

On the previous page was a partial list of Roof Replacements. The following examples are chosen to exhibit a partial assortment of HVAC system replacement projects we have successfully completed:

Barnesville School District  
Bayer Heritage Federal Credit Union  
Bennett Square  
Boone County Schools - multiple projects  
Braxton County Schools - multiple projects  
Braxton County Senior Center  
Brooke County Schools - multiple projects  
Capitol Theatre  
Cardinal Health - multiple projects  
Carenbauer Wholesale Corporation  
Charleston Enterprise Center  
Clay County Schools Middle School  
Coldwater Creek Distribution Centers  
Community Action Southwest Senior Center  
Community Trust Bank - multiple projects  
Convenient Food Mart  
Cornerstone Group - Highlands Office  
Coronet Foods - multiple projects  
Diocese of Wheeling/Charleston Rectory  
Dr. Chapman DDS Office Building  
Dr. Ganzer Medical Office Building  
First Choice America Federal Credit Union  
First National Bank Williamson  
Franciscan Multi-Tenant Building  
Franciscan Office Building  
Fresh-Twist  
Glenville State College - RF Kidd Library  
Grant County Schools - multiple projects  
Grave Creek Mound Museum  
Hampshire County Courthouse  
Hancock County Schools - multiple projects  
Hope VI Units  
Jefferson County Justice Center  
Linsly School - multiple projects  
Marshall County Court  
Marshall County Schools - multiple projects  
Martins Ferry Stadium  
McDowell County Schools - Mount View  
McKinley Carter Wealth Services renovations  
Mt. Calvary Chapel  
Oglebay - Glassworks  
Ohio County Schools - multiple projects  
Orrick's Global Operations Center  
Panhandle Cleaning & Restoration  
PRT Technical Center renovation  
Raleigh County Emergency Services Authority  
Ritchie County Schools - MS/HS  
Sisters of St. Josephs Convent  
Southern WV Community & Technical Center  
St. Matthews Church Parish Hall  
Steubenville MLK Recreation Center  
Summers County Schools - Summers Middle  
The Towers Building in Steubenville  
Tyler County Schools - multiple projects  
Union Bank Sistersville Branch  
USPS - multiple projects  
Wagner Building  
WV Department of Health and Human Resources  
WV Department of Highways  
West Virginia Independence Hall  
West Virginia Northern Community College  
WV State Police - multiple projects  
West Virginia University - multiple projects  
Wetzel County Schools - multiple projects  
Wood County Schools - multiple projects  
(and much more)

# WVDOT, Division of Highways

## State-wide, West Virginia

### Owner

West Virginia Department of Transportation,  
Division of Highways

### Construction Cost

Multiple projects completed under  
2 multi-year open-ended contracts

### Project Architects-Engineers

McKinley Architecture and Engineering

### Project Engineer

Tim E. Mizer, PE, RA, QCxP

McKinley Architecture and Engineering has been honored to be a partner with the **West Virginia Department of Transportation, Division of Highways**, and we are now on our **2nd consecutive Statewide On-Call Agreement** with them. This open-ended contract is to provide both architectural/engineering consulting services (along with Construction Contract Administration, and more) for the performance of various "tasks."

The **scope of services** generally consist of planning, studying, designing, renovating, repairing, conducting plan/specification reviews, preparing equipment specifications and related services for Department of Transportation facilities, including the site, utilities, buildings, and structures.

**For one task**, we designed the **HVAC replacement** to the existing 2-story, 8,820 square foot **WVDOH Equipment Division Facility in Buckhannon** (State Project N081-BLD/GR-0.00 00). We designed a new Variable Refrigerant Flow (VRF) air handling unit with remote condensing unit to condition the offices and conference room. A complete digital controls system was installed, with a desktop computer to allow authorized users access to the system.

**For another task**, we designed the **HVAC replacement** to the **WVDOH District 6 Headquarters Complex in Moundsville** (State Project N081-BLD/GR-0.00). The 31,000 SF building was conditioned with cooling only Air Handling Units and duct mounted heaters. That served full floors of office cubicles with no regard to proper zoning. As the conditioning units began to fail, it was determined that the complete system be replaced with a more economic system. McKinley Architecture and Engineering designed 2 Air Handling Units that provided ventilation air to VRF cassettes in the ceilings above the office areas. This solution provided individual control of all office spaces.

West Virginia Department of Transportation,  
Division of Highways

District 6 Headquarters  
HVAC Renovations  
Moundsville, West Virginia

PROJECT MANUAL  
June 22, 2018

REGISTERED DESIGN CERTIFICATION

**McKINLEY**  
ARCHITECTURE + ENGINEERING

32 20th Street, The Maxwell Centre - Suite 100, Wheeling, West Virginia 26003 • 304-233-0140  
129 Summers Street - Suite 201, Charleston, West Virginia 25301 • 304-340-4267  
416 Longridge Drive, Pittsburgh, PA 15243 • 724-223-8250

2 Open-Ended IDIQ Contracts

# United States Postal Service

## Appalachian Area (West Virginia & Virginia) and Erie/Pittsburgh District in Pennsylvania

### Owner

United States Postal Service

### Construction Cost

Multiple projects completed under 2  
multi-year open-ended contracts

### Project Architects-Engineers

McKinley Architecture and Engineering



McKinley Architecture and Engineering has had **2 separate multiple year open-ended IDIQ agreements with the United States Postal Service**. One is for the **Appalachian Area** [Indefinite Quantity Contract 360070-15-J-0095, which includes the State of West Virginia, and 49 counties and/or independent cities in Virginia], which was awarded on September 29, 2015, and is our **fourth consecutive** multiple year open-ended contract for WV. The second is for the **Erie/Pittsburgh District in Pennsylvania** (Indefinite Quantity Contract 362575-09-J-0232).

We have designed **dozens of facilities** for the USPS, including **new construction, additions, renovations, and rehabilitations** in numerous cities within these areas. We have completed studies, reports, general building renovations, **HVAC systems improvements, building envelope improvements, roofs, windows**, utility infrastructure, elevators, and much more. **HVAC projects include commissioning, testing and balancing**. One recently completed example was a \$1.8 million **build-out / renovation project** for the Parkersburg Carrier Annex & Hub, which includes **new HVAC systems, testing and balancing**, masonry wall, concrete work, exterior wall thermal and moisture protection, site concrete paving, etc. In addition, we have designed over 100 Postal facilities for ADA compliance. We have also completed **Historic Preservation** work, such as extensive interaction with The Secretary of the Interior's (NPS) Standards for the Treatment of Historic Properties and working with the Section 106 process required by SHPO and the Federal Department of the Interior.

For the newest projects, they incorporate **energy efficient** design which follow the newest USPS Standards compliance to provide a more efficient systems. For example, the energy saving on a recent HVAC replacement project was achieved with the use of economizers to allow free cooling when ambient temperatures are below 60° F, and there was commissioning provided on the RTUs. We followed the USPS Standards, and we also completed Form ECC-EZ - Energy Compliance Certification for Low Energy-Impact R&A Projects.

A majority of the projects we have completed for the USPS over the past 20+ years have been various HVAC projects, including these recent examples which were all completed while the buildings remained occupied!:

- Altoona, PA Post Office - \$350,000 HVAC project involved Air Handling Units be replaced along with an addition of a DDC Control System in a historic 1931 facility.
- Charleston Processing & Distribution Center - \$375,000 HVAC renovation project involved replacing thermofusers and the ceiling fan coil units with 8 fan powered VAV boxes and 3 single duct VAV boxes with hot water reheat coils; replacing 3 failed rooftop units with new RTUs with electric heat and economizers; installing 2 new 5-ton mini split AC units in an area without cooling; and extending the existing DDC control system to control these new items. The new RTUs have economizers to allow the unit to provide free cooling whenever the outside air temperature is below 55° F, by modulating the amount of outside air delivered through the unit.
- Clarksburg Finance Station - \$460,000 HVAC project involved the replacement of the outdated 120-ton water cooled chiller and two 107-ton cooling towers, with new energy efficient systems.

## 2 Open-Ended IDIQ Contracts

# United States Postal Service

-Huntington Processing & Distribution Center - \$201,000 HVAC project replacing hot water boiler with like-in-kind.

-Martinsburg Processing & Distribution Center (*seen below*) - \$280,000 HVAC project replacing 4 Packaged Rooftop Units with new, like-in-kind, Packaged Rooftop Units. While the RTUs are similar, there were some design changes made to bring the units in to USPS Standards compliance and to provide a more efficient system. The new units were installed on the existing RTU curbs and tied into the existing duct systems. In order to meet the USPS Standards, the units all utilized R-410A refrigerant. The energy saving mentioned above were achieved with the use of economizers to allow free cooling when ambient temperatures are below 60° F. The existing equipment consists of Packaged Rooftop Heating and Cooling Units with DX Cooling and Gas Heating. The workroom, which makes up the majority of the building square footage houses high amounts of equipment providing high levels of internal heat gain, requiring DX Cooling when the outside air temperatures are below the economizer enable setpoint. As a result, currently to maintain space comfort the RTUs must operate DX Cooling into the heating months or the units are turned off, to save energy. The new equipment provides increased operating efficiencies with the addition of Economizers.

-Monongahela, PA Main Office - \$330,000 HVAC project replacing hot water boiler with 2 high efficiency condensing boilers in a historic 1913 facility; we recommended the most energy efficient solution that is life cycle cost effective over a 20-year period (with the upgrade from 83% to 95% efficient boilers the system operates more efficiently). While cutting the openings in the structural slab for the supply and return duct, the contractor created and/or noticed cracks; therefore we performed an emergency engineering site visit the next day on the condition of the concrete, provided a sketch for the required structural reinforcements, and the reinforcements were installed.

-Williamson Main Office - \$422,000 HVAC project replacing hot water boiler with high efficiency condensing boiler.



and





# Building 55 West Virginia State Office Complex



## Logan, West Virginia

### Owner

State of West Virginia

### Size

53,200 SF approx.

### Project Architects-Engineers

McKinley Architecture and Engineering

### Project Architect

Thomas Worlledge,  
AIA, LEED AP BD+C, REFP

### Contractor

Massaro Corporation

### Commissioning Agent

Iams Consulting, LLC



This new 5-story building underscores its major role in the development and revitalization of downtown Logan by uniting office space for 127 employees for 6 State agencies under one roof, whom were once scattered throughout the city. The 53,200 SF building provides current technology, flexibility for future growth, and security features for existing and future tenants.

At the request of the Owner, the building was designed to be **energy efficient** and meet **sustainable design** goals, confirmed by LEED and energy star requirements. In March 2014, this project became **LEED Certified** for energy use, lighting, water, material use, as well as incorporating a variety of other sustainable strategies.

**To help achieve this**, the **HVAC System** included the installation of custom air handling units with chilled and hot water coils, variable air volume boxes with hot water heating coils, 2 high efficiency condensing boilers, pumps with variable speed drive control, water cooled chiller with cooling tower, packaged rooftop energy recovery ventilator, and direct digital controls.

For the building **exterior**, a tight building **envelope** was created with closed cell foam insulation and thermal efficient windows.

The **windows** are both energy efficient and secure. One of the unique features of the building is the daylight system. The design takes clues from older buildings that were designed to let daylight penetrate deep into the buildings by necessity. To enhance this effect we added "light louvers" which are devices that redirect daylight to the ceiling and diffuse natural light throughout the space. The open offices were placed around the exterior of the building and the enclosed offices along the interior wall so more of the tenants receive quality light. In addition, interior windows allow the daylight to pass to the center offices.



After the project was completed, the firm *alliantgroup* completed an **Energy Efficient Commercial Building Tax Deduction** study regarding the energy efficient features of the building (*seen on the following pages*), and they **projected the building's total energy costs and power costs to have savings of \$34,231 annually!**

View Showing Both Natural Daylighting with Light Louvers, as well as Light from Bulbs





## alliantgroup\*

September 5, 2014

**Sent Via CMRRR: 7013 2630 0000 2069 4021**

Mr. David J. Hildreth  
West Virginia Department of Administration  
900 Pennsylvania Ave., Ste. 500  
Charleston, WV 25302

Re: Logan State Office Bldg. – Energy Efficient Commercial Building Deduction

Mr. Hildreth:

alliantgroup has completed an Energy Efficient Commercial Building Tax Deduction study for Logan State Office Bldg. for Massaro Corporation. As required by U.S. Tax Code § 179D, notification must be given to the building owner regarding the energy efficient features of the building and the building's projected annual energy costs.

Below is a list of the energy efficient features of the building which were installed on or in the building as part of a plan designed to reduce the total annual energy and power costs in comparison to a reference building which meets the minimum requirements of ASHRAE (American Society of Heating and Refrigeration, and Air-Conditioning Engineers) Standard 90.1-2001.

#### Heating, Ventilation, and Air Conditioning Systems:

- Boilers
- Unit Heaters
- Chillers
- Energy Recovery Ventilation

#### Interior Lighting Systems:

- Fluorescent Bulbs
- LEDs
- Occupancy Sensors

#### Building Envelope System:

- Pre-Cast Panels
- Rigid Polyisocyanurate
- Gypsum Board

3009 POST OAK BOULEVARD, SUITE 2000 | HOUSTON, TEXAS 77056  
[www.alliantgroup.com](http://www.alliantgroup.com) | 800.564.4540

# Building 55 West Virginia State Office Complex



The projected annual energy cost for Logan State Office Bldg. was calculated to be \$34,231. Please note that the projected annual energy costs may vary from the building's actual energy costs due to the exclusion of process loads, exterior lighting, variations in occupancy, and variations in usage schedules among other variables.

Please be advised that the amount of the deduction that has been allocated to Massaro Corporation is \$98,658 for the building envelope, HVAC and hot water, and lighting systems in the building. For more information on the allocation of the section 179D deduction, please refer to the U.S. Tax Code § 179D and IRS Notice 2008-40. A copy of the notice can be found at [www.irs.gov](http://www.irs.gov)

If you have any questions, please do not hesitate to contact me.

Very truly yours,

Rizwan Virani  
Managing Director



[www.alliantgroup.com](http://www.alliantgroup.com) | 800.564.4540

# West Virginia Department of Health and Human Resources Office Building

## Wheeling, West Virginia

### Owner

WV Department of Administration:  
Real Estate Division

### Size

56,783 SF

### Construction Cost

\$2 million

### Project Architects-Engineers

McKinley Architecture and Engineering

### Project Architect

Thomas R. Worledge, AIA, LEED AP BD+C, REFP

We were asked by our client to **adaptively reuse/renovate** a former car showroom and service area into an **office building** (now called the Mary Margaret Laipple Professional Building). The first fit-out includes space for the **Department of Health and Human Resources' (DHHR) new Ohio County office**. We worked with our client to fit the DHHR's program into the space and maximize the use of the space.

The **initial \$2 million project** was built in **three phases**, so the project could be **fast tracked to meet the Owner's move-in requirements**.

The **exterior** was completed in the first phase, and included **new exterior skin / envelope** (*seen top right*), **windows** (*seen bottom right*), doors, etc. The showroom **windows** were mostly in-filled **because of the sensitive nature** of the materials in the DHHR's office, but windows high on the wall provide **natural daylight** in the space daylighting, for just one example of the building's **multiple energy-efficient features**.

The second phase was the **interior**, and included offices build-outs, flooring, painting, systems, including **major HVAC / mechanical** and electrical systems to provide a state of the art facility for the DHHR's use, etc..

The final phase was the parking lot and emergency exit fire stair tower.



BEFORE



and AFTER



BEFORE



and AFTER

# West Virginia Independence Hall

## Wheeling, West Virginia

### Owner

WV Division of Culture & History

### Size

22,000 SF

### Project Architects-Engineers

McKinley Architecture and Engineering

### Project Architect

Christina Schessler,  
AIA, LEED AP BD+C

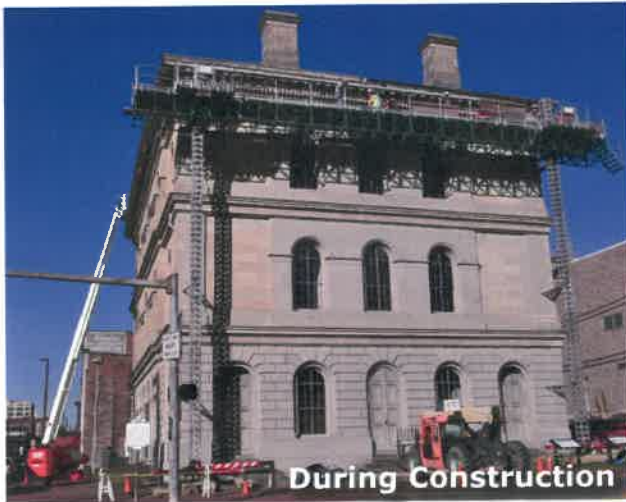
Originally built in 1859 in Wheeling, WV, the **Wheeling Custom House** is considered to be the “**Birthplace of West Virginia.**” The 22,000 square foot building, now appropriately renamed **West Virginia Independence Hall**, was added to the **National Register of Historic Places** in 1970, and was designated as a **National Historic Landmark** in 1988. **McKinley Architecture and Engineering** was presented with a **Heritage Tourism Award** from the **Preservation Alliance of West Virginia**, for our achievements in preserving Independence Hall.

The **West Virginia Division of Culture & History** engaged the professional services of **McKinley Architecture and Engineering** to conduct on site analysis and to document and confirm as much of the existing conditions as possible (short of destructive investigation) in preparation for restoration activities. Afterwards, we completed **multiple renovations and restorations**, including repairs to the **exterior stone envelope, new windows, HVAC upgrades, roof, ceilings, wood flooring, interior plastering, MEP systems, and more.**

A combination of water intrusion conditions existed at the beginning of the restoration; the building had a **failed roofing system, failed box guttering, broken stone, missing mortar and deteriorated wooden windows.** Restoration and renovation work of the building addressed all of these issues, and more.

The failed metal **roofing** system was removed and replaced with 5,000 SF of new standing seam metal and a new custom metal guttering and downspout system (*seen below*). This metal roofing is emblematic of the period of 1859 when the original structure was completed.

Of particular concern was the face of the **exterior stone envelope** (*seen to the left*); over time the stone face had deteriorated due to weathering and ground water absorption, which permitted water penetration at the surface of all the façades. Restoration scope in the early phase included pointing and stone cornice replacement, and the next phase included resurfacing of some of the stone using 2 inch thick slabs pinned to the existing backup stone. All of the **44 double-hung wood windows** have been fully restored and reglazed.



# Raleigh County 911 and Emergency Operations Center HVAC

## Beaver, West Virginia

### Owner

Raleigh County Emergency Services Authority

### Size

12,855 SF

### Construction Cost

\$250,000

### Project Architects-Engineers

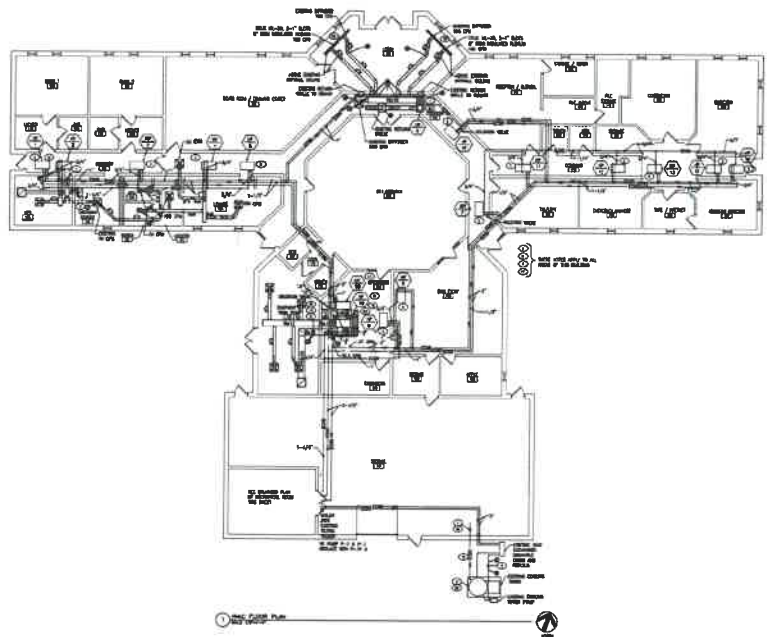
McKinley Architecture and Engineering

### Project Manager

Tim E. Mizer, PE, RA, QCxP

### Contractor

Pennington Plumbing & Heating



McKinley Architecture and Engineering was commissioned to investigate and provide Construction Documents to repair the ill-functioning HVAC system in the Raleigh County Emergency Services Authority's office building (911 Center and Emergency Operations Center).

Upon investigation of this 13,000 SF facility, it was determined that many of the heat pumps were undersized within the 911 Center's most critical areas (such as the Dispatch Room). More importantly, it also was determined that the building was not constructed architecturally as designed and this deficiency greatly influenced the total building's HVAC system's performance.

The project included the replacement of 2 Water Source Heat Pump Units and adding 1 new Water Source Heat Pump Unit, relocating a Water Source Heat Pump Unit from above a critical computer area, installing a new main boiler and utilizing the existing boiler as back-up boiler, replacing 2 building loop circulating pumps, installing a new HVAC Control System, replacing the cooling tower filter, replacing the cooling tower water level control and adding a water hammer arrester on the line to prevent water line rattling, installing new heat pump flow control hose kits, and adding pitched Roof Insulation at R-25 thickness.

Since the facility is a 911 Center, it must remain in operation 24/7; therefore, the pumps were replaced one at a time so that the building could stay in operation, while the building remained occupied.

In addition to HVAC renovations, the project also includes associated electric work, miscellaneous interior renovations and insulation work.



# The Towers Building

## Steubenville, Ohio

### Owner

Jefferson County Commissioners

### Size

76,300 SF

### Construction Cost

\$6.1 million approx.

### Project Architects-Engineers

McKinley Architecture and Engineering

We have worked with the Board of Commissioners of the County of Jefferson on several projects over the past few years, and currently have an engineering and architectural services open ended contract with them.

One major project example is multiple phases of renovations and upgrades to **The Towers Building**. This is a **40+ year old, 8 story high-rise** in downtown Steubenville. Unusually cold weather, age, and the culmination of years of insufficient maintenance had resulted in a series of situations resulting in frozen pipes, systems shutting down, and continuing emergency maintenance issues in the building.

We have **designed multiple phases of renovations for the building; a main roof replacement, mezzanine roof replacement** and new lobby skylight, **building envelope repairs**, a **new boiler**, new ADA handicapped ramp, and an **overall HVAC replacement**. In addition, there was an adaptive reuse of a former bank on the first floor, into an office fit-out / renovations for the Jefferson County Board of Elections. **Our designs addressed repair options, efficiency and energy saving solutions.**

**The construction was performed with the building in operation.** These projects were completed over time, with different General Contractors. For one example, the **new boiler** project involved the replacement of existing inefficient electric boilers with a new gas fired boiler. The new boiler is **high energy efficiency**, and has a much **smaller footprint**.

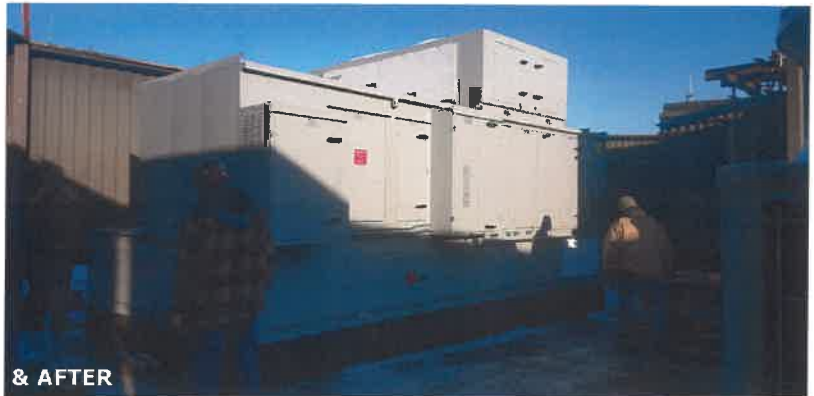
The **\$800,000 exterior envelope repair project** (*seen to the left*) required masonry-clean all precast panels, including remove and replace all joint sealant, precast column repairs to realign columns as closely as possible, attached new steel anchors, patch precast concrete where required, restoration of glazing system including new gaskets and anodized caps, and more. The contractor for that Phase was Church Restoration Group.

The **\$3.4 million HVAC replacement** project included **renovations to the entire building**. The **demolition** included the removal existing cooling tower, exhaust fan, rooftop unit, and associated ductwork and piping from upper roof (tower); removal of existing exhaust fan and gravity ventilating intake hoods from lower roof (mezzanine); removal of basement air handling units, chilled water piping and pumps, condenser water piping and pumps, ductwork, chiller, and VAV boxes throughout the building. **The new HVAC system** included the installation of variable refrigerant flow system (VRF) throughout the building; installation of new dedicated outside air system (DOAS-1) on the upper roof (tower) and an air handling unit (AHU-1) in the basement with the condensing unit installed on the lower roof (mezzanine); installation of new and the reworking of existing ductwork; new shut-off and control valves installed on the existing hot water perimeter finned-tube baseboard; and installation of a new DDC Control system throughout the building. The electrical work included disconnecting existing power from demolished equipment and the installation of new circuits to the new equipment, which included adding a sub-panel on every floor. There was also partition extensions, ceiling removal and replacement, fire sealant work, and fireproofing repairs.

*On the following page are pictures of the Roof and HVAC replacements.*



# The Towers Building





Harrison County Schools

# Gore / Victory Elementary School

## Clarksburg, West Virginia

### Owner

Harrison County Schools

### Size

61,300 SF

### Construction Cost

\$8 million

### Project Architects-Engineers

McKinley Architecture and Engineering

### Project Architect

Thomas R. Worlledge,  
AIA, LEED AP BD+C, REFP

### Contractor

City Construction Company

We have completed a few projects for Harrison County Schools over the past few years, including **additions, renovations/adaptive reuse, and new construction**. For one example, this **\$8 million** project is to **adaptively reuse** and convert United High School to the new Gore / Victory Elementary School; combining Adamston Elementary School and Wilsonburg Elementary School. The project includes **55,200 SF of renovations**, along with **6,100 SF of new additions**.

A **2-story classroom wing addition** was designed to accommodate the number of students.

The interior **renovations** includes classroom upgrades, kitchen and dining areas, as well as a gym and other various interior renovations to the existing buildings. The interior also includes **upgrading the HVAC**, new fire alarm, adding a fire sprinkler system, etc. There are new safe school features including a new man-trap addition at the main entrance with a security vestibule.

**On the exterior is a new building façade and infilling and replacing the windows**. Furthermore, there will be parking and separate drop off loops for the buses and parents.

We also designed multiple **"High Performance School"** components and **energy efficient** features, such as **full MEP upgrades to create a high-efficiency HVAC system** as well as new ceilings with LED lighting systems, **window infills with high-performance glass, daylight windows for natural daylighting, added wall insulation for energy efficiency, ventilation and high-efficiency filters for good indoor air quality**, and more. The **HVAC system** was upgraded to a four-pipe system with the addition of a chiller and new unit ventilators capable of providing the ventilation air required by code.





## Sherrard, West Virginia

### Owner

Marshall County Schools

### Size

49,700 SF

### Construction Cost

\$8.4 million

### Project Architects-Engineers

McKinley Architecture and Engineering

### Project Architect

Thomas R. Worledge,  
AIA, LEED AP BD+C, REFP

### Contractor

Grae-Con Construction

### Commissioning Agent

Iams Consulting, LLC



The 49,700 SF Hilltop Elementary School didn't start out as a green school but the design intent was to **incorporate good sustainable design practice**. It was not until after construction had commenced that the Owner decided to submit for LEED Certification. This required a great deal of coordination with the architects, engineers, subcontractors and suppliers. A lot of time was spent researching LEED-approved furnishings, finishes, etc. to make the indoor environmental quality conducive to learning, and to minimize maintenance. Since we incorporated good sustainable design practices **from the beginning of design**, this allowed for an easy transition, and for the project to be successfully completed. **Hilltop Elementary is the first LEED Certified school in the state of West Virginia!**

For the **LEED Certification**, we received points for the HVAC system (*seen bottom left*) **design and commissioning**, such as Thermal Comfort Controllability, Design, & Verification, as well as **Mold Prevention**. The HVAC System consists of 3 Single Zone Packaged Rooftop Units and a Series of Fan Coil Units, having ventilation air provided by a Dedicated Outside Air Unit. The Packaged Rooftop Units have Electric Heat, DX Cooling, Enthalpy Controlled Economizer with CO2 Override (on the Cafeteria Unit) and Hot Gas Reheat for Dehumidification Control. Upon a space RH value above 60% the DX Cooling will be energized, and Hot Gas Reheat will be utilized to prevent overcooling of the space. We are also preventing elevated humidity by limiting the ventilation air in the seldom occupied spaces, with the use of CO2 control. Upon a CO2 level of 800 ppm, the outside air damper will modulate open. However, the majority of the time the ventilation air will be kept at a minimum, since the space is seldom used at full capacity, greatly limiting the humidity. The Maximum Calculated RH value for the Classrooms served by the Fan Coil Units is 60%. The ventilation air is delivered to the spaces through a Dedicated Outside Air Unit. The Dedicated Outside Air Unit includes a Total Energy Wheel. When the outside air humidity levels are elevated, the Energy Wheel will provide the first level of dehumidification. Based on the interior sensible loading, the reduced airflow and cooling supply air temperature, the resulting RH in the space will not exceed 60%.

We also received multiple other **LEED points** in areas such as: low-emitting materials, acoustical performance, **windows / daylighting** & views, lighting system design, light pollution reduction, optimized energy performance, recycled content, regional materials, innovation in design, and much more. The School Building Authority's 2009 Limit on New Elementary School Design is \$217/SF, but Hilltop Elementary's final price is less than \$170/SF. **This amount was well below the national average for elementary school construction, sustainable or not. Also, this project had less than 1% in non-elective change orders!**

Hilltop won a Gold Medal Green Building Award by Building of America, a Placemaker Award for Leadership of/for Place from the West Virginia GreenWorks, a West Virginia Department of Environmental Protection's Clean Energy Environmental Award, a Black Bear Award for the **Highest Achievement** for the West Virginia Department of Education's Green Ribbon Schools program, and the first-ever **U.S. Department of Education Green Ribbon Schools!**

# References

We feel that the best way to demonstrate our strengths and leadership in **HVACs, windows, roof, and exterior envelope design** is by referring to our clients. We have an ever-growing list of repeat clients. We are able to respond to their needs, and we are certain that we are able to respond to all of your needs as well. So that you don't only have to take our word for it; we encourage you to call our references:

*(HVAC Projects)*

Mr. Joshua Smith, PE  
WVDOT Division of Highways  
1900 Kanawha Boulevard, East  
Building 5, Room 350  
Charleston, WV 25305  
304 / 887-2325

*(Several Projects County-Wide, including HVACs, windows, roofs, envelopes, etc.)*

Mr. Thomas Gentile  
Jefferson County Commissioners  
301 Market Street  
Steubenville, OH 43952  
740 / 283-8500

*(Open-Ended IDIQ Contracts, including multiple HVAC, windows, roofs, envelopes, etc.)*

Mr. Michael Douglass  
United States Postal Service  
27497 Albert Pick Road  
Greensboro, NC 27498  
336 / 665-2875

*(Several Projects County-Wide, including HVACs, windows, roofs, envelopes, etc.)*

Dr. Kim Miller  
Ohio County Schools  
2203 National Road  
Wheeling, WV 26003  
304 / 243-0300



# West Virginia General Services

**CEOI 0211 GSD2300000004**

**Building 37 Window, HVAC, Roof,  
and Envelope Upgrades Project**

 **McKINLEY**  
ARCHITECTURE + ENGINEERING



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

(Printed Name and Title) Ernest Dellatorre, Director of Business Development

(Address) 129 Summers Street - Suite 201, Charleston, West Virginia 25301

(Phone Number) / (Fax Number) (304) 233-0140 x115 | (304) 233-4613

(email address) edellatorre@mckinleydelivers.com

**CERTIFICATION AND SIGNATURE:** By signing below, or submitting documentation through wvOASIS, I certify that: I have reviewed this Solicitation/Contract in its entirety; that I understand the requirements, terms and conditions, and other information contained herein; that this bid, offer or proposal constitutes an offer to the State that cannot be unilaterally withdrawn; that the product or service proposed meets the mandatory requirements contained in the Solicitation/Contract for that product or service, unless otherwise stated herein; that the Vendor accepts the terms and conditions contained in the Solicitation, unless otherwise stated herein; that I am submitting this bid, offer or proposal for review and consideration; that this bid or offer was made without prior understanding, agreement, or connection with any entity submitting a bid or offer for the same material, supplies, equipment or services; that this bid or offer is in all respects fair and without collusion or fraud; that this Contract is accepted or entered into without any prior understanding, agreement, or connection to any other entity that could be considered a violation of law; that I am authorized by the Vendor to execute and submit this bid, offer, or proposal, or any documents related thereto on Vendor's behalf; that I am authorized to bind the vendor in a contractual relationship; and that to the best of my knowledge, the vendor has properly registered with any State agency that may require registration.

*By signing below, I further certify that I understand this Contract is subject to the provisions of West Virginia Code § 5A-3-62, which automatically voids certain contract clauses that violate State law; and that pursuant to W. Va. Code 5A-3-63, the entity entering into this contract is prohibited from engaging in a boycott against Israel.*

McKinley Architecture and Engineering

(Company)

  
(Signature of Authorized Representative)

Ernest Dellatorre, Director of Business Development January 30, 2023

(Printed Name and Title of Authorized Representative) (Date)

(304) 233-0140 x115 | (304) 233-4613

(Phone Number) (Fax Number)

edellatorre@mckinleydelivers.com

(Email Address)



ADDENDUM ACKNOWLEDGEMENT FORM  
SOLICITATION NO.: CEOI GSD2300000004

Instructions: Please acknowledge receipt of all addenda issued with this solicitation by completing this addendum acknowledgment form. Check the box next to each addendum received and sign below. Failure to acknowledge addenda may result in bid disqualification.

Acknowledgment: I hereby acknowledge receipt of the following addenda and have made the necessary revisions to my proposal, plans and/or specification, etc.

Addendum Numbers Received:  
(Check the box next to each addendum received)

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> Addendum No. 1 | <input type="checkbox"/> Addendum No. 6  |
| <input type="checkbox"/> Addendum No. 2            | <input type="checkbox"/> Addendum No. 7  |
| <input type="checkbox"/> Addendum No. 3            | <input type="checkbox"/> Addendum No. 8  |
| <input type="checkbox"/> Addendum No. 4            | <input type="checkbox"/> Addendum No. 9  |
| <input type="checkbox"/> Addendum No. 5            | <input type="checkbox"/> Addendum No. 10 |

I understand that failure to confirm the receipt of addenda may be cause for rejection of this bid. I further understand that any verbal representation made or assumed to be made during any oral discussion held between Vendor's representatives and any state personnel is not binding. Only the information issued in writing and added to the specifications by an official addendum is binding.

McKinley Architecture and Engineering

Company



Authorized Signature

January 30, 2023

Date

NOTE: This addendum acknowledgment should be submitted with the bid to expedite document processing.



Per your request on the "GENERAL TERMS AND CONDITIONS," Part 8 "INSURANCE", on the following pages you will see copies of our various Insurance Coverages:



### CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)  
07/27/2022

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

**IMPORTANT:** If the certificate holder is an **ADDITIONAL INSURED**, the policy(ies) must have **ADDITIONAL INSURED** provisions or be endorsed. If **SUBROGATION IS WAIVED**, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

<b>PRODUCER</b> Paull Associates, Inc. 1311 Chapline Street PO Box 990 Wheeling WV 26003-0123	<b>CONTACT NAME:</b> Amy Stover <b>PHONE (A/C No. Ext):</b> (304)233-3303 <b>E-MAIL ADDRESS:</b> astover@paullassociates.com	<b>FAX (A/C No.):</b> (304)233-3333	
	<b>INSURER(S) AFFORDING COVERAGE</b> INSURER A: CINCINNATI INS CO INSURER B: INSURER C: INSURER D: INSURER E: INSURER F:		<b>NAIC #</b> 10677
<b>INSURED</b> McKinley & Associates Inc See Additional Named Insured Schedule Below 32-20th Street Ste 100 Wheeling WV 26003-			

**COVERAGES**                      **CERTIFICATE NUMBER:**                      **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL SUBR (INSR, WVD)	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	X <b>COMMERCIAL GENERAL LIABILITY</b> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR  GEN'L AGGREGATE LIMIT APPLIES PER: POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC OTHER:	X	EPP 0146335	06/15/2022	06/15/2023	EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 500,000 MED EXP (Any one person) \$ 10,000 PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COMP/OP AGG \$ 2,000,000
A	<b>AUTOMOBILE LIABILITY</b> ANY AUTO OWNED AUTOS ONLY <input checked="" type="checkbox"/> SCHEDULED AUTOS HIRED AUTOS ONLY <input checked="" type="checkbox"/> NON-OWNED AUTOS ONLY	X	EPP 0146335	06/15/2022	06/15/2023	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$
A	X <b>UMBRELLA LIAB</b> <input checked="" type="checkbox"/> OCCUR EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED RETENTION \$	X	EPP 0146335	06/15/2022	06/15/2023	EACH OCCURRENCE \$ 1,000,000 AGGREGATE \$ 1,000,000
	<b>WORKERS COMPENSATION AND EMPLOYERS' LIABILITY</b> ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N	N/A			PER STATUTE    OTH-ER E.L. EACH ACCIDENT \$ E.L. DISEASE - EA EMPLOYEE \$ E.L. DISEASE - POLICY LIMIT \$

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)  
 MCKINLEY ARCHITECTURE AND ENGINEERING, MCKINLEY ARCHITECTURE AND ENGINEERING LLC, MCKINLEY ARCHITECTURAL SERVICES INC, WILLOW GLEN CAPITAL, FORT HENRY LLC, MCKINLEY ENGINEERING CO.; CERTIFICATE ISSUED AS PROOF OF INSURANCE.

<b>CERTIFICATE HOLDER</b> Specimen	<b>CANCELLATION</b> AI 005479 SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.  AUTHORIZED REPRESENTATIVE 
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