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WV PURCHASING
DIVISION

January 23, 2019

Ms. Stephanie Gale, Senior Buyer
Purchasing Division
West Virginia Department of Administration
2019 Washington Street, East
Charleston, WV 25305

**RE: Expression of Interest for Wheeling AASF#2 Rotary Wing Aircraft Hangar Addition
Solicitation No.: CEOI 0603 ADJ1900000011**

Dear Ms. Gale and Selection Committee Members:

Achieving the goals established for the Wheeling AASF#2's hangar addition are greatly dependent upon selecting the right A/E design partner. GRW would like to work with you on your project. Our team offers you the right experience and expertise to successfully complete your project, and we are committed to meeting your needs.

Experience and Familiarity. GRW is a full-service A/E design consulting firm that has been working with clients like you on similar projects throughout the region for more than 50 years. Our experience ranges from **WVARNG Camp Dawson improvements** to **WVANG hangar modifications** at Martinsburg to **municipal and regional airport hangar projects throughout West Virginia.** (See Section 2.0)

GRW and its subsidiary Chapman Technical Group (offices in St. Albans and Buckhannon, WV) also have extensive experience in developing projects through the WV Purchasing Division. We have designed, bid, and constructed numerous, major Division of Natural Resources projects throughout the state. The West Virginia Division of Highways (DOH) recently began working with the State's Purchasing Division for building projects, and **our \$10 million equipment shop building for District One was the first project that the DOH bid through the WV Purchasing Division.** Our knowledge and experience of the State's purchasing procedures made this an easy transition for all stakeholders. Although every agency has its own particulars with regard to bidding projects, our experience with the WVARNG and the State's Purchasing Division will help ensure effective and efficient project delivery.

We Are Committed to Your Success. Taking care to meet your goals for your budget and schedule is a priority, as it is on every GRW project. From our extensive federal, state and local government experience, GRW is skilled at delivering designs that maximize the potential of the site, and integrate the architectural and engineered features of the building in relation to its environment, eliminating the need for redesigns and re-bids to bring the cost within budget.

The ultimate measure of success is how well the completed projects meet your needs and aspirations. To this end, our project team is committed to establishing an inclusive, methodical and logical approach to the design process.

Thank you for your consideration and for the opportunity to work with the West Virginia Department of Administration, and Army National Guard Construction and Facilities Management office. We look forward to the next step in your selection process where we can present our additional ideas toward the successful completion of your project.

Respectfully submitted,

Shane Lyle, AIA, LEED AP/BD+C
GRW Vice President



engineering | architecture | geospatial

Expression of Interest

Wheeling AASF#2 Rotary Wing Aircraft Hangar Addition

CEOI 0603 ADJ1900000013

WV Department of Administration WV Army National Guard

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1.0 GRW Introduction

About GRW

Founded more than 50 years ago, GRW is an employee-owned architectural, engineering and geospatial services firm with more than 200 employees.

At GRW, we have the ability to address your projects from nearly every angle. Because of our in-house capabilities, we can more easily tailor our approach allowing our teams to deliver more quickly, with greater potential for more accurate cost estimates, and fewer change orders.

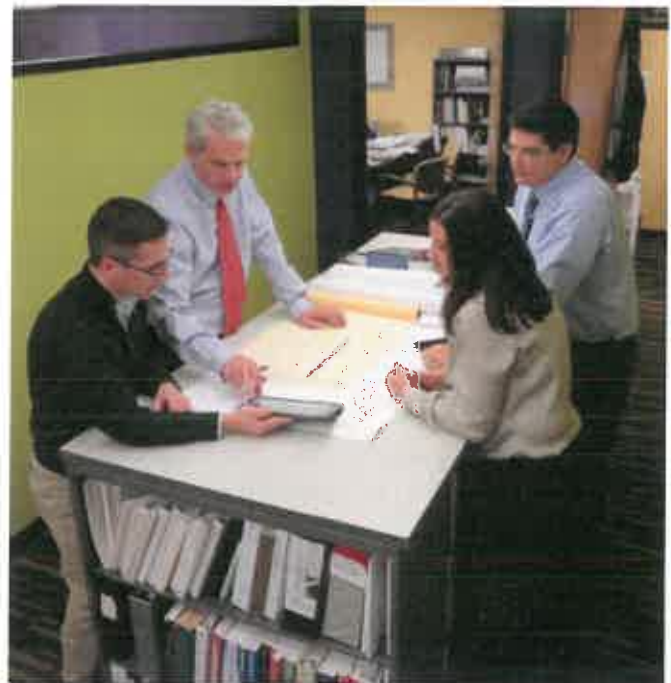


Among our achievements, GRW is listed in *Building Design and Construction's Giants 300* report as one of the nation's top Architecture-Engineering firms. Also, since 1972, GRW also has been recognized nationally as a top producing firm by *Engineering News-Record*.

Our Corporate Culture

Our corporate culture is one of close collaboration with an approach that gives our project managers and their project teams a hands-on approach, as needed, from planning through construction phases.

At GRW, we know that business relationships are built on trust – the ability to trust your business partner to deliver on their promises. By choosing GRW for your professional services, you are choosing a company that delivers on our promises. You can expect our full attention starting on day one, and extending to the day of project completion and beyond. **Listening diligently to your needs, and those of your stakeholders, is the hallmark of our approach.** Delivering projects that meet our clients' goals – honestly, reliably, and efficiently, time after time – is the reason why GRW has achieved a 90% rate of repeat business.



Department of Defense Experience

GRW brings to the table a wide ranging body of military experience that includes work for the National Guard, U.S. Army, U.S. Air Force, the U.S. Army Corps of Engineers, and the Naval Facilities Engineering Command (NAVFAC). These projects include renovation and new construction work, as well as military master plans, and a broad range of geospatial services.

The map below provides a general geographic overview of where we have provided services to the military.



* U.S. Army Corps of Engineers work encompasses multiple IDIGs and task orders in 18 Districts
OCONUS Locations: Kadena Air Base, Okinawa, Japan and Camp Lemonnier, Djibouti



Sustainable Design

GRW understands the desire for energy efficiency and the option to incorporate sustainable design features. Whether planning for a Net-Zero or Net-Zero-Ready building, “designing to standards of” or achieving recognition from agencies such as Energy Star, LEED, or Green Globes, we work with you to develop an initial list of reasonable sustainable design features (using a GRW-standardized matrix), and determine an initial implementation approach. During this process, our knowledgeable staff looks at initial cost versus life-cycle cost, maintainability, and return-on-investment.



Geotechnical and Hazardous Materials Subconsultant: Triad Engineering, Inc.



Triad is a multi-disciplinary engineering firm based in the Mid-Atlantic region specializing in the areas of geotechnical engineering, civil and utility engineering, construction materials engineering and testing and inspection, surveying, environmental consulting services, drilling, and other earth science related disciplines. Since its founding in Morgantown, West Virginia in 1975, Triad has provided engineering consulting services on thousands of projects of varying size and complexity. Triad is 100% employee-owned, with every employee taking part in Triad's ESOP from field support staff to senior managers.

Triad currently maintains approximately 175 technically sound employees located in seven offices across five states. Its work force includes environmental scientists, geologists, hydrologists, civil, geotechnical and mining engineers, landscape architects, chemists, surveyors, trained Computer-Aided Design (CADD) draftsmen, field and laboratory technicians, drillers, and support personnel. Triad is proud of its very low turnover rate, which adds to continuity and enhances the level of productivity and experience afforded by Triad.

With **over 42 years of service in West Virginia** and surrounding states, both the number and complexity of Triad's projects have grown. The firm's clients include federal, state and local governmental agencies, contractors, architects, engineers, attorneys, developers, commercial organizations, and mining and industrial corporations.



Facilities and equipment have continued to evolve through the years to adapt to the changing needs of the market. Triad has developed a fleet of drill rigs and support vehicles to meet the field operations needs. Well-equipped material testing laboratories are maintained to provide support for our geotechnical engineering and construction monitoring projects.

Each office maintains networks to support CADD functions, hydrogeologic evaluations, water balance modeling, roadway design, storm water management and surface water drainage, design, stability analyses, risk assessment, survey data reduction, and mapping. These broad, in-house capabilities give Triad better control over project schedule, quality, and cost, thereby minimizing problems that can occur during the various contract phases.

2.0 Relevant Past Projects

167th Airlift Wing C-17 Hangars and Maintenance Shop Modifications

West Virginia Air National Guard | Martinsburg, WV

The West Virginia Air National Guard selected GRW to design modifications to the 167 Air Wing's 79,421 SF Corrosion Control Hangar; 80,700 SF Fuel Cell Hangar; 80,751 SF Maintenance Hangar; and 2,744 SF Composite Material Shop to support its mission change from C-5 to C-17 aircraft.

- **Corrosion Control Hangar** To adequately perform aircraft wash activities, facility components such as the fall protection, air systems, drop lights, drop electrical outlets, fire protection foam generators, water, aircraft jacking points, and other maintenance support systems require adjustment to accommodate the new aircraft. The foam generators and sprinkler piping will be reconfigured, and the system updated to meet current Air Force (AF) and ANG fire suppression criteria.
- **Fuel Cell Hangar** To adequately perform maintenance activities, facility components such as the fall protection, air systems, drop lights, drop electrical outlets, fire protection foam generators, water, aircraft jacking points, exhaust, and other maintenance support systems require adjustment to accommodate the new aircraft. The foam generators and sprinkler piping will be reconfigured, and the system updated to meet current Air Force (AF) and ANG fire suppression criteria.
- **Maintenance Hangar** To adequately perform general purpose maintenance activities, facility components such as the fall protection, air systems, drop lights, drop electrical outlets, fire protection foam generators, water, aircraft jacking points, and other maintenance support systems require adjustment to accommodate the new aircraft. The foam generators and sprinkler piping will be reconfigured, and the system updated to meet current Air Force (AF) and ANG fire suppression criteria.
- **Composite Material Shop** The existing facility was designed to repair fiberglass and aluminum parts. The new C-17 is composed of carbon fiber materials, and the shop requires new technologies and environmental controls to meet the sensitive temperature requirements and reduce microscopic airborne fibers associated with carbon fiber. The following systems will also be modified or upgraded: HVAC, electrical, lighting, communications, security, and sprinklers.

Client Contact: Major Emerson Slack, Deputy Base Civil Engineer, West Virginia Air National Guard, (304) 616-5233, emerson.c.slack.mil@mail.mil

167th Airlift Wing C-17 Munitions Storage

West Virginia Air National Guard | Martinsburg, WV

For the WV ANG 167th Air Wing, GRW provided Type A, B, and C services for a new munitions inspection building, five magazines (all pre-manufactured modular units), and new concrete pads totaling 2,865 SV. Additionally, 5,566 SF of all-weather paving was provided for vehicular access to the new buildings. Ancillary features include gate/fencing, utilities, exterior lot lighting, communications, and security for the munitions area.

Triad served as our team's geotechnical engineer for this project.

Client Contact: Major Emerson Slack, Deputy Base Civil Engineer, West Virginia Air National Guard, (304) 616-5233, emerson.c.slack.mil@mail.mil

167th Airlift Wing C-5 Apron Repair

West Virginia Air National Guard | Martinsburg, WV

GRW was selected to provide evaluation and design services to repair the C-5 apron for the 167th Airlift Wing of the West Virginia Air National Guard located in Martinsburg. Due to suspected poorly draining base and sub base, moisture is being retained causing the concrete section to fracture and heave to the point that FOD (foreign object debris) is being produced, and plowing snow is causing damage to equipment and injuring personnel.

Investigative services will include a core drill of the area to ascertain the depth of excavation needed, and the amount and size of needed drainage improvements. The pavement repair of approximately 1,755 SY includes demolition and removal of fractured and heaved pavement down to below original base and sub base, compaction of

new material, placing of sub base and base and concrete pavement parking apron, asphalt shoulder stabilization, all constructed to support C-5 aircraft. Utility and site improvements will also be included.

Triad served as our team's geotechnical engineer for this project.

Contractor Performance Assessment Report (CPAR) from Contracting Officer:

- **Quality: Exceptional**
- **Schedule: Exceptional**
- **Cost Control: Exceptional**
- **Management: Exceptional**
- **Regulatory Compliance: Exceptional**

Client Contact: LtCol John Poland, Base Civil Engineer, WV ANG, (304) 616-5198, john.r.poland4.mil@mail.mil

Readiness Center Commissioning Projects

West Virginia Army National Guard

GRW was contracted by the West Virginia Army National Guard to provide LEED Fundamental Commissioning for four building construction projects:

- Buckhannon AFRC - Phase I, 38,000 SF and \$13,150,000 construction cost
- Morgantown Readiness Center, 58,520 SF and \$20,500,888 construction cost
- Moorefield Readiness Center, 57,256 SF and \$17,725,351 construction cost
- Logan Readiness Center, 58,520 SF and \$14,296,326 estimated construction cost.

The scope of services included all commissioning required for LEED certification on the HVAC systems and networked controls, the lighting control systems

and the domestic hot water distribution systems, including coordination with providing contractors, documentation of all installations and testing, coordination of owner training and assistance with LEED submittals.

Contractor Performance Assessment Report (CPAR) from Contracting Officer:

- **Quality: Exceptional/Outstanding Overall Job**
- **Schedule: Exceptional/Outstanding Overall Job**
- **Cost Control: Exceptional/Outstanding Overall Job**
- **Management: Exceptional/Outstanding Overall Job**
- **Regulatory Compliance: Exceptional/Outstanding Overall Job**

Client Contact: MAJ Daniel Clevenger, CFMO, West Virginia Army National Guard, (304) 561-6446, daniel.w.clevenger.mil@mail.mil

Police Department Helicopter Hangar and Maintenance Facility

City of Fort Worth | Fort Worth, TX

GRW designed a new 17,753 SF, semi-hardened facility, located at Meacham International Airport, for the Fort Worth Police Department Air Support Division Headquarters and for the Fort Worth Police Department Intelligence Division.

The facility is a single level structure with design specifications incorporating an insulated concrete form technology which results in a concrete wall and roof structure, and is intended to be survivable under high wind and other adverse conditions. During emergency operations situations, the facility provides a setting for the police air support division to provide emergency services.

The building includes a **4,775 SF office area; 2,998 SF maintenance shop; and 11,980 SF helicopter hangar.** The facility accommodates police intelligence division activities including housing emergency and intelligence/surveillance equipment, and serves as a marshalling/staging area for joint operations task forces formed from various law enforcement agencies.

The helicopter maintenance area includes a component overhaul room large enough for main

rotor hub and blades balancing, a room for cleaning and painting, and a room for special tools. The space also contains an office and technical library.

The project required a significant amount of site evaluation and site planning before a final building location was determined. Because of the proposed sites proximity to the south end of runway 16-34 and the possible consequences of helicopter over flight of surrounding neighborhood, possible alternative alignments for the helicopter approach and departure tracks were studied.

Due to the unique functional relations between helipad landing location and other nearby facilities (including a Texas Commission on Environmental Quality air quality monitoring station), numerous studies and adjustments were made to the physical location of the building before the final location was achieved. Airport security, line-of-sight vision issues and proximity to nearby residential areas all presented special challenges; the project was designed to utilize as much of an existing concrete parking lot as possible in order to reduce construction costs.





126th Air Refueling Wing Flightline Facilities for Relocation to Scott AFB Illinois Air National Guard | Scott AFB, IL

GRW was one of five A/E team members chosen to design facilities for the relocation of the Illinois ANG and their KC-135E aircraft in the unit's move from Chicago O'Hare International Airport to Scott AFB. The design efforts represent over \$15,000,000 worth of facilities toward the development of this new, \$85,000,000 installation for the Illinois ANG. The design of this flightline complex was accomplished under tight time constraints to meet construction and relocation deadlines associated with the move from O'Hare International Airport.

The work for the GRW team included design of:

- Fuel cell hangar
- Renovations to an existing two-bay general maintenance hangar including design of the engine inspection and repair shop
- Aerospace ground equipment (AGE) shops and storage
- General purpose maintenance shops

Specifically, GRW provided full A/E design for the aerospace ground equipment shops and storage, and the general purpose maintenance shops. GRW also provided construction administration services for all four projects.

The **AGE shop and storage building** (5,241 SF) supports inspection, maintenance, repair and servicing of all authorized powered aircraft support equipment. The facility contains maintenance bays, tool crib, storage, battery shop and administrative areas as well as wash and paint areas. In addition, covered storage and parking for selected essential base vehicles and AGE equipment are provided.

Aircraft Engine Repair Shops and Parachute Shops are attached to the **general maintenance shops** (46,202 SF), which contain general purpose maintenance, avionics, engine repair, para-rescue and administrative areas. The Engine Inspection and Repair and the Non-Destructive Inspection Shops include aircraft maintenance shops for aircraft engine inspection and repair functions, with non-destructive inspection operations for engine/parts inspection. The Parachute Shops include functions to receive, inspect, repair, pack and ship parachutes and life rafts in industrial type space.

“GRW worked tirelessly with the members of the 126 ARW during the design phase of the Flight Line Buildings. They have stepped up to the challenge of the compressed schedule, completing each design phase in a timely manner. The acceptance of 'ownership' of this project has resulted in an extremely good working relationship with the 126 ARW, assuring that the users' requirements are identified and included in the design.” – Lt. Col. William E. Mell, Illinois ANG regarding the relocation of the IL ANG to Scott AFB

Upshur County Regional Airport Improvements

Buckhannon Upshur Airport Authority | Buckhannon, WV

Chapman Technical Group, a division of GRW, designed improvements at the Upshur County Regional Airport include:

- Two apron extensions on either side of the original aircraft parking apron, tying each end of the combined apron to the runway with two exit taxiways
- Development of an 11-acre plateau upon which another apron was constructed along with a taxiway to join the main apron
- **Six T-hangars**
- **Two 10,000 SF hangars**



One of the 10,000 SF hangars has an 18-foot door height to accommodate the airport's growing local fixed-based operator; the other hangar has a 28-foot door height for an avionics and interior refurbishing business. A specially-designed reinforced floor slab accommodates a variety of aircraft. Innovative construction details were developed to meet the specific fire safety and building codes while remaining within client's budget.

Appalachian Regional Airport Hangars and Aviation Fuel Farm

Mingo County Airport Authority | Williamson, WV

This multi-phase project included the design of the new Appalachian Regional Airport, which was constructed on a reclaimed surface mine site. This general aviation facility replaced the Mingo County Airport located in Williamson, WV. The initial design included a 5,000-foot long runway, designated Runway 8-26. Subsequent projects involved a partial parallel taxiway, a 175,000 SF main aircraft parking apron, complete airfield lighting system and a perimeter security fence.

A later phase of the airport development included an aircraft storage hangar and a fuel storage and dispensing system.

This phase included:

- **A 10-unit nested T-hangar with 8-42' wide door units and 2-44' wide door units**
- Aviation fuel storage and dispensing unit for Jet-A turbine fuel, including 10,000-gallon, above-ground double-wall storage tank, and 200 gpm pumping and filtration system
- Aviation fuel storage and dispensing unit for aviation gasoline, including 6,000-gallon, above-ground double-wall storage tank, and 150 gpm pumping and filtration system
- Aviation self-service fueling terminal with credit card reader, user interface, and dispenser control functions

167th Airlift Wing Basewide Sewer Line Repair

West Virginia Air National Guard | Martinsburg, WV

GRW provided design and construction administration services for this FY12 Sustainment, Restoration and Modernization (SRM) project for the 167th AW. A Concept Development Report was the first step in the design phase, and represented the collaborative efforts of the Design Working Group (DWG) and GRW to select a preferred design concept for the sanitary sewer system replacement. The report provided the basis of design for the replacement sewer system, including conceptual drawings, a project schedule and a construction cost estimate. An innovative approach – filling abandoned lines with lightweight concrete – was developed to reduce project costs, compared to the traditional method of removing the lines and site restoration.

GRW completed Type B design services to prepare detailed plans and specifications for the replacement

of the existing failing sewers, and provide adequate sewage lines to support the base's mission for 10 PAA C-5 aircraft. Construction administration services, including shop drawing reviews and inspections, were also provided by GRW.

Contractor Performance Assessment Report (CPAR) from Contracting Officer:

- **Quality: Exceptional**
- **Schedule: Exceptional**
- **Cost Control: Exceptional**
- **Management: Exceptional**
- **Small Business Subcontracting: Exceptional**
- **Regulatory Compliance: Exceptional**

Client Contact: Major Emerson Slack, Deputy Base Civil Engineer, West Virginia Air National Guard, (304) 616-5233, emerson.c.slack.mil@mail.mil

Camp Dawson Training Ranges at Briery Mountain

West Virginia Army National Guard | Kingwood, WV

The scope of work for this project included the design and construction of a new Hand Grenade Familiarization Range and Live Fire Exercise Breach (LFEB) Training Range at the Briery Mountain Training Area to conform the site to government standard Breach Range Design Requirements. The project required construction of an access road to the remote site, electrical connections, breaching structures, open covered range operations and control shelter, storage building, dry latrine, covered viewing stands, and a parking area.

The project design schedule was nine months, including the design charrette, document

development submittals and government reviews, one of which was on-site with user group representatives. The project was divided into seven additive bid options to enable the government to maximize the construction to available funds, avoid rebidding and as a hedge against an unpredictable construction market. Once bid, the construction schedule was developed to avoid disruption of an endangered species nesting cycle.

Client Contact: MAJ Robert Kincaid, Jr., Range Operations Manager, (304) 791-4459, robert.j.kincaid.mil@mail.mil

Camp Dawson Live Fire Exercise Shoot House Complex

West Virginia Army National Guard | Kingwood, WV

GRW provided full architecture and engineering services for the design and construction of a \$2 million Live Fire Exercise Shoot House (LFSH) complex. This project was completed as a combination design-build and design-bid-build program. Primary facilities include a LFSH (1,600 SF), an Operations/Storage facility (1,163 SF), an After Action Review (AAR) facility (1,362 SF) and an Ammunition Breakdown facility (593 SF), totaling approximately 4,720 SF.

The West Virginia ARNG acquired property, a former industrial complex adjacent to Camp Dawson, which included several vacant buildings. The project's first phase involved an on-site Project Planning Document Charrette (PPDC) which enabled the GRW design team to collect information about the vacant buildings and site, interview user groups, develop conceptual floor and site plans, and validate the project DD 1391.

Following the PPDC, GRW developed a conceptual design package for the re-purposing of an abandoned metal warehouse into the 1,600 SF LFSH. This package included drawings and specifications

that formed the basis of a design-build RFP. Final design and construction of the LFSH unit was completed by the selected vendor, under the supervision of GRW and the WV ARNG.

After completion of the LFSH, GRW prepared the design package for the remaining support facilities, which included the Operations/Storage, AAR and Ammo Breakdown facilities; renovation of an existing restroom in the warehouse; and access road, parking area and site utilities. GRW also provided construction administration services for this part of the project which utilized the traditional design-bid-build project approach.

This project was designed in accordance with: TC 25-8 Training Ranges (8 December 2000), CEHNC 1110-1-23 Design Guide for the Sustainable Range Program (for LFSH), NG PAM 415-5 ARNG Military Construction Program Execution, and DA PAM 385-63 DA Guidance on Range Safety.

Client Contact: MAJ Robert Kincaid, Jr., Range Operations Manager, (304) 791-4459, robert.j.kincaid.mil@mail.mil

Relocation of Camp Dawson Electrical Power and Communications Lines

West Virginia Army National Guard | Kingwood, WV

The WV ARNG retained GRW to develop a phased design for the relocation of the overhead electrical power lines and communications lines to underground duct banks. Following a study that established the scope of each phase of the relocation project, GRW prepared plans and specifications for a 4-phase construction program to eliminate the historic problems associated with overhead services. These phases were based on funding limitations that precluded a single, large construction project.

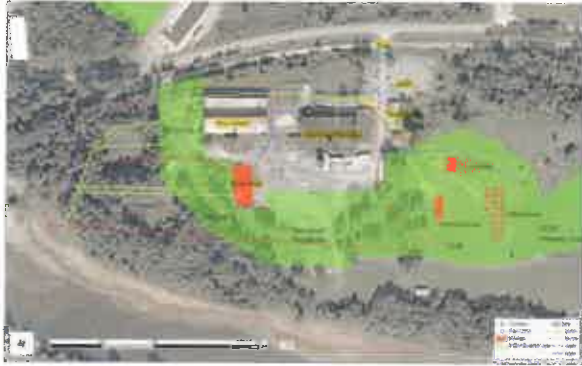
Phase 1 provided for relocating approximately 3000 LF of power lines to new underground duct banks, with the associated replacement of pole-mounted

transformers with pad-mounted transformers. The transformers ranged in capacity from 1000 KVA to 50 KVA. Phase 2 included relocating the communications service to new underground duct banks along the same 3000 LF route. The third and fourth phases included the relocation of approximately 2000 LF of overhead power lines and overhead communications lines to new duct banks, respectively. Vacuum interrupters were added to improve selective coordination between various circuits.

Client Contact: MAJ Robert Kincaid, Jr., Range Operations Manager, (304) 791-4459, robert.j.kincaid.mil@mail.mil

Camp Dawson Volkstone Training Area Utility Upgrade

West Virginia Army National Guard | Kingwood, WV



The WV ARNG hired GRW to design the extension to current and future areas of the Volkstone training facility. The scope included sewer (1,996 LF), water (1,751 LF), and electric (1,797 LF) to all existing and future buildings, unit training equipment site (UTES) and wash rack locations. This project also includes design of Forward Operating Base (FOB) including 20 14' x 16' wooden buildings, new bath house for approximately 200 people and pavilion.

Design of water and sewer to the following:

- Existing Search and Extraction Building
- Existing Bath House
- Existing DPW Storage Building
- Future Barracks FOB Shower House

Water service is provided by extending the existing 6" water main, located near the Search and Extraction Building, to the edge of the CERF-P area and terminate at a fire hydrant there. Service lines for other areas will be extended off this main line.

Water supply is provided to the FOB Shower House planning for 60 people at a time. Based on industry standards for this type of facility it is expected each person will use an average of 40 gallons per day (GPD). This is an average daily usage of at least 2,400 GPD.

Sewer service is provided by extending the existing sewer mains when possible. This main is located near the Search and Extraction building. The addition of a new pump station to serve the areas will be considered if the existing system is not capable of servicing the expanded areas. The scope of the sewer main work terminates at a stub-up near the buildings with new water and sewer service.

The existing three phase underground Volkstone power distribution system was expanded to accommodate all existing and future structures and training areas including:

- Existing Search and Extraction Building
- Future FOB Headquarters Building
- Future FOB Barracks
- Future FOB Shower House
- New waste water pump station

Provisions for power to a future automated front gate will be installed in the future. All services will be either 240/120 volt or 208/120 volt single phase except the Search and Extraction Building which will be 480/277 volt, three phase and the DPW Storage Building which has an existing 208/120 volt, three phase service. The design complies with current West Virginia State codes.

Contractor Performance Assessment Report (CPAR) from Contracting Officer Matthew Corcoran:

- **Quality: Exceptional/Outstanding Overall Job**
- **Schedule: Exceptional/Outstanding Overall Job**
- **Cost Control: Exceptional/Outstanding Overall Job**
- **Management: Exceptional/Outstanding Overall Job**
- **Regulatory Compliance: Exceptional/Outstanding Overall Job**

Client Contact: MAJ Robert Kincaid, Jr., Range Operations Manager, (304) 791-4459, robert.j.kincaid.mil@mail.mil

130th Airlift Wing Building 107 Renovation

West Virginia Air National Guard | Charleston, WV

This project included two separately funded (MILCON/SRM) sub-projects. These two companion projects were designed to **re-purpose an existing unoccupied hangar into administrative, simulation training, and storage spaces** for the Aeromedical Evacuation Squadron (AES). Both projects were designed to meet LEED Silver design criteria.

The project scope included:

- **Upgrade of mechanical and electrical systems** to meet current building codes and standards
- **Replacement of inadequate restrooms** and locker rooms
- Replacement of fire alarm and fire protection systems
- **Hardening of the front façade, replacement of windows**, and elimination of on-street parking to achieve ATRP compliance
- Construction of new interior spaces and renovation of existing shop areas to create necessary office, training, and support spaces

The completed building includes the following programmed spaces:

- Command and administration
- Flight crew support spaces
- Medical simulation areas for flight crew training
- Mobile storage and staging
- Medical equipment maintenance
- Conference rooms, classrooms, and breakrooms
- Restrooms and locker rooms
- HVAC, electrical, and communications support

Client Contact: Capt. Harry Netzer, Deputy BCE, WV ANG, (304) 341-6649, harry.g.netzer.mil@mail.mil

Contractor Performance Assessment Report (CPAR) from Contracting Officer Robert Barker:

- **QUALITY:** Contractor meet requirements for design on this project. Firm worked a difficult task order with 2 project task order numbers, utilizing 2 designs for one project. Quality of work for project benefited the government by providing a thorough final design for the project.
- **SCHEDULE:** Contractor kept to scheduled deadlines for project requirement. Worked well with Base Contracting and Civil Engineering to discuss any issues that would delay deadlines.
- **COST CONTROL:** Contractor kept costs controlled during project and worked very well with Base Contracting and Civil Engineering, keeping pace in utilization of 2 sources of funding, both MILCON and SRM.
- **MANAGEMENT:** Contractor met contractual requirements and worked well with the 130th Airlift Wing Base Contracting Office and Civil Engineering office. No major management issues were noted during the performance of the contract and GRW engineers and team continued to communicate regularly to ensure all aspects of the project were on track.
- **REGULATORY COMPLIANCE:** Performed all necessary environmental testing and occupational health requirements for project; kept base personnel informed of any findings or issues that would significantly delay project completion.
- **ADDITIONAL/OTHER:** Good team to work with; continues to maintain very professional standards and conduct.





130th Airlift Wing Security Forces Squadron Facility Renovation and Expansion

West Virginia Air National Guard | Charleston, WV

GRW was retained to provide complete architectural and engineering Type A, B and C services for renovating the existing 5,395 SF Security Forces Squadron facility and adding 2,500 SF of administrative and training space to the facility. This project uses MILCON/SRM split funding to deliver a renovated and expanded SFS facility, which provides increased space for command and administrative functions.

A few relevant spaces and features include:

- Expanded command/administrative space
- Arms vault
- Training rooms
- SIPRNet
- ATFP building/site security
- ADA compliance
- Geothermal
- Split MILCON/SRM funding
- Extensive communications infrastructure

This project meets LEED Silver measures for sustainable design.

Contractor Performance Assessment Report (CPAR) from Contracting Officer Matthew Corcoran:

- **Quality: Exceptional/Outstanding Overall Job**
- **Schedule: Exceptional/Outstanding Overall Job**
- **Cost Control: Exceptional/Outstanding Overall Job**
- **Management: Exceptional/Outstanding Overall Job**
- **Regulatory Compliance: Exceptional/Outstanding Overall Job**

Client Contact: Capt. Harry Netzer, Deputy BCE, WV ANG, (304) 341-6649, harry.g.netzer.mil@mail.mil



Joint Armed Forces Reserve Center and Field Maintenance Shop Complex

Ohio Army National Guard | Columbus, OH

GRW provided full-discipline A/E services for planning, design and construction of a new LEED Silver Certified 85,865 SF Joint Armed Forces Readiness Center (AFRC) and Field Maintenance Shop (FMS) for the OH Army National Guard (ARNG) and the US Army Reserves in Springfield, Ohio. These facilities are designed to match the architecture of the facilities on an adjacent site occupied by the Ohio ANG.

The administrative/training complex includes the following functional spaces and features:

- Private offices and administrative common spaces
- **Classrooms** and library
- Gymnasium-type multipurpose assembly hall with fully functional kitchen
- Physical fitness area
- Heated and unheated storage areas
- Full cutoff luminaires for site lighting to eliminate light trespass
- Occupancy sensor controlled interior lights throughout
- T5 low mercury, high-efficiency fluorescent lamps and electronic ballasts

- Energy submetering connected to building management system (DDC)
- Geothermal system for heating and cooling of the facilities
- Site anti-terrorism/force protection measures, security lighting, utilities and landscaping

Using innovative design methods and alternative construction materials, GRW was able to optimize this project so that it was bid at \$13,938,000, approximately \$9.5 million less than the original budget determined by the government.

Client Contact: George McCann, Project Manager, OH ARNG, (614) 336-7413, george.c.mccann@us.army.mil

"I want to take this opportunity to tell you and your team how much the Ohio ARNG appreciated the design GRW produced for the Springfield AFRC and FMS. Of particular note was your Project Manager, Jimmy Piper, who did an outstanding job coordinating all design disciplines, incorporating the Ohio ARNG design comments, and following all required design guidance from the NGB to ensure all design submissions were timely and complete."
- COL Robert C. Clouse, CFMO, Ohio ARNG



76th Brigade Combat Team Readiness Center

Indiana Army National Guard | Indianapolis, IN

GRW provided A/E design and construction administration services for a new 109,555 SF two-story Army National Guard Readiness Center in Lawrence, a suburb of Indianapolis, IN. This facility is located on a site that was formerly part of Fort Benjamin Harrison. An 8,300 SF unheated storage facility is also included.

Relevant spaces and features of interest:

- Private offices and administrative common spaces
- **Classrooms**, COMSEC training, library and training center, distance learning, training aid storage area, audio/visual area
- Assembly hall with fully functional kitchen and chair and table storage
- Locker rooms, medical section room
- Heated unit storage rooms, facility maintenance, arms vault, unheated storage building
- Building operating spaces and support spaces
- Tool rooms, battery room, mechanical and electrical system rooms, communications equipment rooms
- RAPIDS, family support and recruiting offices
- Spaces for the future installation of a simulator or indoor range
- Flammable material storage and controlled waste facilities
- Military and POV parking, wash platform, loading ramp and dock, access roads, helipad
- Site AT/FP measures, security lighting, utilities and landscaping

- Energy management and control system, lighting controls, intrusion detection system, mass notification system
- HVAC, plumbing and fire protection systems
- Emergency power generator

Client Contact: Major Chris Purtell, Contracting Officer, IN ARNG, (317) 247-3514, chris.purtell@us.army.mil

"I want to take this opportunity to express my appreciation and gratitude to your and your team for what we feel will be a highly successful design of our Lawrence Readiness Center. The design process that your team led us through has been extremely productive and efficient. Their effectiveness was due in large part to the highly professional team you assembled for this project, and their willingness to meet the owner's requirements and timeline. We are anxious to see the project through to completion and the continued work with your staff throughout the process. Again thank you and the team at GRW for the hard work and professional approach to this design."
Steven Hines, Facilities Management Officer, Indiana ARNG

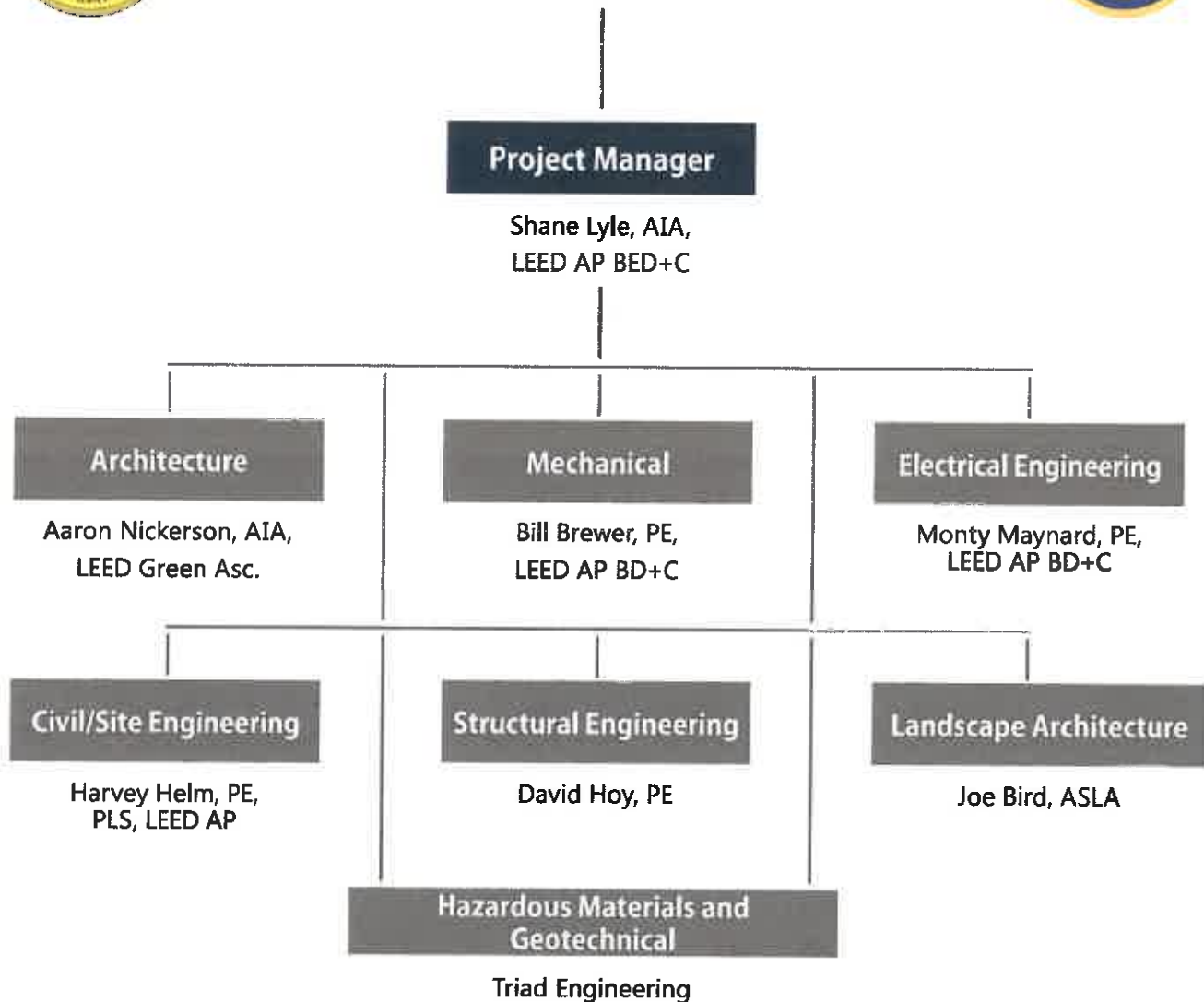
3.0 Staff Qualifications

When you work with a GRW team, you have access to some of the most reputable consultants in the industry. For the Wheeling AASF #2 hangar project, each of the GRW team members has WV ARNG and/or ANG experience. From the design of hangars to readiness centers to training ranges, our team members are experts in their fields. Furthermore, our team’s local knowledge and capacity has been strengthened by GRW’s acquisition of West Virginia-based Chapman Technical Group.

Our clients also directly benefit from GRW’s one-stop business model and multidiscipline staff who specialize in architecture, engineering (mechanical, electrical, structural, transportation, civil/site), and landscape architecture. These capabilities allow our teams to collaborate more efficiently with you, which makes a significant positive impact on your project experience.



West Virginia Department of Administration and West Virginia Army National Guard



Shane Lyle, AIA, LEED AP BD+C | GRW Project Manager



YEARS OF EXPERIENCE:

With GRW: 29

Total: 35

EDUCATION

Bachelor of Architecture (with honors), 1983, University of Kentucky

REGISTRATION

Registered Architect: KY, WV, TN, AL, GA, IN, TX, MS, SC, FL, MO, AZ, NM, CA, WA

National Council of Architectural Registration Boards (NCARB) Certification

LEED Accredited Professional, Building Design + Construction

Certified Interior Designer: Kentucky

PROFESSIONAL AFFILIATIONS AND TRAINING

American Institute of Architects

Past President - AIA East Kentucky Chapter Board of Directors

Member / Past Officer - UK College of Architecture Alumni Association

Life Member - UK Alumni Association

Shane's architectural design and project management experience is extensive. He regularly takes primary responsibility for a wide range of projects for a diverse group of clients including the U.S. Armed Forces, the Federal Bureau of Prisons, universities, medical facilities, local and state governments, and private developers. His areas of responsibility typically include programming/planning, budget analysis, design, construction documents, client meetings, bidding/negotiation services, construction phase services, and code compliance.

RELEVANT PROJECT EXPERIENCE

West Virginia ANG 167th Airlift Wing C-17 Corrosion Control Hangar Modifications, Composite Material Shop, Maintenance Hangar Modifications, and Fuel Cell Hangar Modifications, Martinsburg, WV – Project Manager. Fast-track projects required to meet 167AW's change in mission from C-5 to C-17 aircraft.

West Virginia ANG 167th Airlift Wing C-17 Munitions Storage, Martinsburg, WV – Architect. New munitions inspection building, five magazines (all pre-manufactured modular units), new concrete pads (2,865 SF), all-weather pavement (5,566 SF) for vehicular access, gate/fencing, utilities, exterior lot lighting, communications, and security for the munitions area.

West Virginia ANG 167th Airlift Wing C-5 Apron Repair, Martinsburg, WV – Principal. Evaluation and design services to repair fractured/heaved C-5 apron caused by poorly draining base and sub base. Pavement repair of approximately 1,755 SY includes demolition and removal of fractured and heaved pavement down to below original base and sub base, compaction of new material, placing of sub base and base and concrete pavement parking apron, asphalt shoulder stabilization, all constructed to support C-5 aircraft. Utility and site improvements will also be included.

West Virginia ARNG Joint Armed Forces Reserve Center and Area Maintenance Support Activity, Ripley, WV – Architect. Preparation of a Program Planning Document Charrette (PPDC) for replacement of two local armories and a USAR center with aging facilities and site limitations, with a new, \$17 million Joint Armed Forces Reserve Center and support facilities on a 94-acre site. Resulting plans include an Armed Forces Reserve Center (60,927 SF), unheated storage (6,000 SF), area maintenance support (4,500 SF) and helipad.

West Virginia ANG 130th Airlift Wing Building 107 Renovation, Charleston, WV – Principal. Scope of work included design services (LEED Silver design criteria) for two separately funded (MILCON/SRM) sub-projects to repurpose existing unoccupied hangar into space for the Aeromedical Evacuation Squadron (AES). Repairs and building repurposing includes: new interior spaces within existing facility to accommodate new functions; building exterior repairs, new interior finishes; mechanical and electrical systems upgrade; fire alarm and fire protection systems repair; and site/building revisions to meet ATEP standards. New functional areas include spaces for medical simulation training, maintenance, operations, administration, storage, and other mission-related activities.

West Virginia ANG 130th Airlift Wing Security Forces Squadron Facility Renovation and Expansion, Charleston, WV – Principal. Complete architectural and engineering Type A, B and C services for \$2 million renovation of 5,395 SF SFS facility (B142) including addition of 2,500 SF administrative and training space to better serve unit. Project (MILCON/SRM split funded) will increase space and improve mission performance and operational efficiency for command and administrative functions in ways that are energy efficient, code compliant and in accordance with current ANG policies. Project will meet LEED Silver design criteria, and all AT/FP and ADAAG requirements.

West Virginia ANG 130th Airlift Wing Squadron Operations Facility Repair, Charleston, WV – Principal. Design services for \$3 million renovation and energy-efficient improvements to 25,765 SF facility with history of remodeling activities resulting in a building that inadequately serves its users (Administration and Operations, Base Operations, Command Post, and Life Support and Fitness Center). Work included Charrette to develop alternative floor plans. Selected design allows for efficient use of space; HVAC, electrical and fire protection systems upgrade; and roof repairs. Designed to achieve USGBC LEED Certified rating, meet all ANG Sustainable Design criteria and utilize MILCON/SRM split funding.

West Virginia ANG 130th Airlift Wing Communications Facility, Charleston, WV – Project Manager. Design (Type A and B, 65%) for a new \$3.6 million, 13,100 SF Communications Facility at Yeager Airport in Charleston for West Virginia Air National Guard, designed for LEED Silver rating, to provide a centrally located common user communications system for both intra-base and off-base communications, with ground control of all ground point-to-point contact and air to ground point-to-point contact (such as radio, telephone, DISNET, etc.). Design paused at 65% to enable base's master plan and re-prioritize new capital improvements.

West Virginia ARNG Camp Dawson Volkstone Training Area Utility Upgrade, Kingwood, WV – Principal. Expansion of sewer, water and electric to all existing and future buildings, unit training equipment site (UTES) and wash rack locations. Also includes design of Forward Operating Base (FOB) including 20 14' x 16' wooden buildings, new bath house for approximately 200 people and pavilion.

West Virginia ARNG Camp Dawson Ranges, Kingwood, WV – Principal. Project includes design and construction of new Hand Grenade Familiarization Range and Live Fire Exercise Breach (LFEB) Training Range at Briery Mountain Training area to conform site to government standard Breach Range Design Requirements.

Michigan ARNG Design & Renovation of 8 Facilities at Ft. Custer, Camp Grayling, Grayling Army Airfield and Midland – Construction Administration Manager. New Bachelor Officer Quarters at Fort Custer, Camp Grayling and Grayling AAF; addition to Range Control Building and new Logistics Facility at Fort Custer; new General Officers BOQ at Camp Grayling; new Company Operations Facility at Grayling AAF; and kitchen and other renovations to an existing armory in Midland.

Aaron Nickerson, AIA, LEED Green Asc. | GRW Architect



YEARS OF EXPERIENCE:

With GRW: 12

Total: 13

EDUCATION

Bachelor of Architecture (with honors), 2006, University of Kentucky

Master of Architecture, 2007, University of Kentucky

REGISTRATION

Registered Architect: KY, TN, IN, WV, FL, NY, WA

National Council of Architectural Registration Boards (NCARB) Certification

LEED Green Associate

PROFESSIONAL AFFILIATIONS AND TRAINING

American Institute of Architects (AIA)

U.S. Green Building Council (USGBC)

Society of American Military Engineers (SAME)

Aaron is experienced with the full range of architectural services, including programming, schematic design, design development, code research, construction documents, and construction administration. He regularly provides architectural leadership for complex building projects; his increasingly responsible experience includes two federal prisons each with construction costs in excess of \$180 million.

RELEVANT PROJECT EXPERIENCE

West Virginia ANG 130th Airlift Wing Communications Facility,

Charleston, WV – Architectural Designer. Design (Type A and B, 65%) for a new \$3.6 million, 13,100 SF Communications Facility at Yeager Airport in Charleston for West Virginia Air National Guard, designed for LEED Silver rating, to provide a centrally located common user communications system for both intra-base and off-base communications, with ground control of all ground point-to-point contact and air to ground point-to-point contact (such as radio, telephone, DISNET, etc.). Design paused at 65% to enable base's master plan and re-prioritize new capital improvements.

Ohio ARNG Joint Armed Forces Reserve Center and Field Maintenance Shop Complex, Springfield, OH – Architectural Designer. Project Planning

Document Charrette and design for new LEED Silver Certified 85,865 SF complex serving both Ohio Army National Guard and U.S. Army Reserves. Provided Joint Armed Forces Reserve Center (AFRC) totaling 60,902 SF, and Field Maintenance Shop (FMS) totaling 24,963 SF, with a construction bid of \$14 million (\$9 million under the MCC of \$23 million) due in large part to innovative design and alternative construction materials. Functional spaces include administrative, educational (classrooms, weapons simulator, distance learning, training-specific libraries, COMSEC), assembly hall and kitchen, general storage, flammable materials storage and controlled waste facilities, and 10 drive-through work bays (6 for ARNG, 4 for USAR). Site work included extension of utilities from adjacent ANG base, grading, drainage and stormwater detention, perimeter fencing and entry point control, parking and access roads, wash platform, AT/FP measures, and geothermal system for heating and cooling.

Blue Grass Army Depot Personnel Support Facility, Richmond, KY –

Project Manager. Design-build project of approximately 7,500 SF, pre-engineered metal building including space for field office activities, conference rooms, locker and changing areas, and laundry and storage.

Blue Grass Army Depot Main Entry Control Facility and Battlefield Memorial Highway Revisions, Richmond, KY – Architect. Design and

construction administration services for design-build project at main entry control facility (ECF). Revisions at main ECF involved removing, closing, and relocating it to current parking lot entrance, as well as widening and providing KYTC-required improvements, such as new traffic signals, warning signals, and revised signage to U.S. 421 at new entrance. ECF structures, signage, fencing, utilities, pavement, and pedestrian facilities improvements were also included.

Wright Patterson AFB Consolidate / Renovate Building 614, Wright-Patterson AFB, OH – Architect. Demolition of Building 745 CE Grounds Maintenance; consolidation and renovation of existing Building 614 CE Grounds Maintenance Shop; and addition to Building 614 in Area B. Design-build delivery.

Crane NSA Building 69 Renovations, Crane NSWC, IN – Project Manager. Renovation of an existing building into an office with lunchrooms and break out offices. The facility was upgraded to meet energy and life safety code, new finishes, and mechanical and electrical systems.

Crane NSA Building 3149 Mechanical Systems Renovation, Crane NSWC, IN – Architect. A/E design and construction administration services for spot cooling and boiler replacements encompassing primarily mechanical and electrical engineering. Involved two, ground-mounted, custom-built, 26-ton, cooling-only units, and new distribution system, providing 100% outside air for individually-controlled spot cooling at numerous working stations inside 26,100-SF non-cooled ammunition processing building. Hot water boiler and circulating pump also were replaced with new high-efficiency units.

Crane NSA Building 174 Complex Boiler Renovations, Crane NSWC, IN – Architect. Mechanical and electrical design, and construction administration services for design/build replacement of heating systems at Building 174 and two other buildings.

Crane NSA Building 2781 New Lunchroom/Breakroom, Crane NSWC, IN – Project Manager. For 1,000-SF design-build project, provided architectural design, and mechanical/plumbing, electrical, and structural engineering services, as well as construction administration. Project involved demolition of existing building 2781 and replacement with a new pre-engineered metal building to be used as a lunchroom/breakroom.

Crane NSA Building 3234 Interior Mezzanine Addition, Crane NSWC, IN – Project Manager. Design services for design-build renovation providing a modular office space on the mezzanine, including stairway access and a lift for life safety access features. Also included architectural design, as well as new HVAC, electrical and lighting systems, and construction administration services.

Crane NSA Depot Operations Field Office (Building 3530), Crane NSWC, IN – Project Manager. Design and construction administration services for design-build of new Depot Operations Field Office which included 2,800 SF pre-engineered metal building. Functional areas include private and shared offices, common multi-use area, break room, computer kiosk bank of seven computers with field scanner docking stations, storage and equipment room, restroom/locker rooms, and mechanical/utility space. Also included ABA compliant parking and sidewalks, designated AFTP standoffs from new building.

Marshall University Weisberg Family Engineering Laboratory, Huntington, WV – Architectural Designer. A/E design for a new, 16,000 SF Engineering Laboratory Building on the main campus providing laboratories for materials, soils, hydraulics, structural, and environmental studies, classrooms and faculty offices.

Bill Brewer, PE, LEED AP BD+C | GRW Mechanical Engineer



YEARS OF EXPERIENCE:

With GRW: 19

Total: 47

EDUCATION

B.S., Mechanical Engineering,
1967, Case Western Reserve
University

REGISTRATION

Professional Engineer: KY, CA,
OH, NC, TN, NH, WV, IN, TX, MS,
GA, VA, MI, PA, KS

NCEES Member, allows
reciprocity with other states
LEED Accredited Professional,
Building Design + Construction

PROFESSIONAL AFFILIATIONS AND TRAINING

American Society of Mechanical
Engineers

American Society of Heating,
Refrigeration and Air
Conditioning Engineers,
Bluegrass Chapter

American Institute of
Aeronautics and Astronautics
International Code Council
Society of Fire Protection
Engineers

International Ground Source
Heat Pump Association

U.S. Green Building Council

American Council of
Engineering Companies

Certified Energy Auditor

Simplex-Grinnell Clean Agent
Training: "Clean and Green -
Ansul Sapphire and Inergen Fire
Suppression Agents"

Bill's vast engineering experience has involved the design, application and trouble-shooting of a wide range of environmental and process systems, particularly HVAC, plumbing and fire protection systems. His experience has encompassed mechanical engineering design for dozens of water and wastewater treatment plant systems, and pumping stations. Bill also regularly works on projects involving GRW's educational, municipal, state, and federal clients. He is a Certified Energy Auditor and has performed many energy audits. Bill has also been involved in the construction administration for most of his projects.

RELEVANT PROJECT EXPERIENCE

West Virginia ANG 167th Airlift Wing C-17 Corrosion Control Hangar Modifications, Composite Material Shop, Maintenance Hangar Modifications, and Fuel Cell Hangar Modifications, Martinsburg, WV – Mechanical Engineer. Fast-track projects required to meet 167AW's change in mission from C-5 to C-17 aircraft.

West Virginia ANG 167th Airlift Wing C-17 Munitions Storage, Martinsburg, WV – Mechanical Engineer. New munitions inspection building, five magazines (all pre-manufactured modular units), new concrete pads (2,865 SF), all-weather pavement (5,566 SF) for vehicular access, gate/fencing, utilities, exterior lot lighting, communications, and security for the munitions area.

West Virginia ARNG Readiness Center Commissioning Projects – Project Manager. LEED Fundamental Commissioning for four building construction projects: the Buckhannon, WV AFRC - Phase I, 38,000 SF and \$13,150,000 construction cost, the Morgantown, WV Readiness Center, 58,520 SF and \$20,500,888 construction cost; the Moorefield, WV Readiness Center, 57,256 SF and \$17,725,351 construction cost, and Logan, WV Readiness Center, 58,520 SF and \$14,296,326 estimated construction cost. Scope includes all commissioning, coordination and documentation required for LEED certification on the HVAC systems and networked controls, the lighting control systems and the domestic hot water distribution systems.

West Virginia ANG 130th Airlift Wing Aboveground Fuel Storage Dispensing Facility, Charleston, WV – Mechanical Engineer. Design for a new aboveground fuel station for the installation's government-owned vehicles, comprising two new aboveground tanks (1 diesel, 1 unleaded gasoline) and a new dispensing system, replacing an older fuel station that included underground fuel storage tanks.

West Virginia ANG 130th Airlift Wing Communications Facility, Charleston, WV – Mechanical Engineer. Design (Type A and B, 65%) for a new \$3.6 million, 13,100 SF Communications Facility at Yeager Airport in Charleston for West Virginia Air National Guard, designed for LEED Silver rating, to provide a centrally located common user communications system for both intra-base and off-base communications, with ground control of all ground point-to-point contact and air to ground point-to-point contact (such as radio, telephone, DISNET, etc.). Design paused at 65% to enable base's master plan and re-prioritize new capital improvements.

Indiana ARNG 76th Brigade Combat Team Readiness Center, Lawrence, IN – Mechanical Engineer. Planning, design and construction administration services for a new 109,555 SF, 2-story Readiness Center and 8,300 SF unheated storage facility.

Kentucky ARNG Joint Armed Forces Reserve Center and Field Maintenance Shop, Paducah, KY – Mechanical Engineer. Engineering design for design / build delivery of a \$14.7 million complex of over 83,300 SF total in three buildings, meeting LEED Silver sustainable design rating, serving both Kentucky Army National Guard and U.S. Army Reserves.

Fort Knox Warriors in Transition Headquarters Building, Fort Knox, KY – Mechanical Engineer. Design services (including BIM model) for design-build of new 7,000 SF Warriors in Transition Headquarters Building to meet LEED Silver design criteria. Construction is single-story load bearing masonry with truss roof framing and shingle roofing. Sustainable design features included geothermal heat pump system, 100% LED lighting, manual on/automatic vacancy off lighting controls, and automatic daylight harvesting in rooms with south facing windows.

Air Force Special Operations Command C-130 Hangar Complex, Cannon AFB, NM – Mechanical Engineer. Concept design and Design-Build RFP to construct two of the first facilities supporting C-130 aircraft to be built at a new AFSOC base at Cannon AFB (NM), including a Corrosion Control Hangar (\$22 million, 57,700 SF) and a Fuel Cell Hangar (\$23 million, 31,100 SF).

Colorado ANG 140th Air Wing Add/Alter Weapons Release Facility, Buckley AFB, CO – Mechanical Engineer. Upgrade and expansion of existing Building 805 (from 12,100 SF to 16,200 SF) to support new missions: 18 PAI F-16 aircraft and Air Sovereignty Alert (ASA). Involved extensive modifications to existing floor plan and interior finishes, space allocated for training additional personnel and mission support equipment, increased energy efficiency through upgraded HVAC and lighting, and received new roof and new building envelope. Project received LEED Silver certification.

Crane NSA Building 3149 Mechanical Systems Renovation, Crane NSWC, IN – Project Manager. A/E design and construction administration services for spot cooling and boiler replacements encompassing primarily mechanical and electrical engineering. Involved two, 20-ton, outdoor cooling-only units, using 100% outside air for spot cooling at numerous working stations. Hot water boiler and circulating pump also were replaced with new high-efficiency units.

Crane NSA Depot Operations Field Office (Building 3530), Crane NSWC, IN – Mechanical Engineer. Design and construction administration services for design-build of new Depot Operations Field Office which included 2,800 SF pre-engineered metal building. Functional areas include private and shared offices, common multi-use area, break room, computer kiosk bank of seven computers with field scanner docking stations, storage and equipment room, restroom/locker rooms, and mechanical/utility space. Also included ABA compliant parking and sidewalks, designated ATRP standoffs from new building.

Monty Maynard, PE, LEED AP BD+C | GRW Electrical Engineer



YEARS OF EXPERIENCE:

With GRW: 22

Total: 41

EDUCATION

B.S., Electrical Engineering, 1978,
University of Kentucky

REGISTRATION

Professional Engineer
(Electrical): KY, WV, IN, GA, TN,
TX, NV, NC, MS, MI, AL, CA, DC,
FL

NCEES Member allows
reciprocity with other states

LEED Accredited Professional,
Building Design + Construction

Certified Healthcare Contractor

PROFESSIONAL AFFILIATIONS AND TRAINING

National Fire Protection
Association

International Society of
Automation

American Institute of Architects

American Council of
Engineering Companies

National Council of Examiners
for Engineering and Surveying

Air National Guard Civil
Engineering Association Life
Member (Associate)

Society of American Military
Engineers

American Water Works
Association

Kentucky Society of Healthcare
Engineers

Monty's experience with electrical design, process instrumentation and control design, and project management is extensive. He has been involved with the design of building systems for more than 300 projects with total construction values as high as \$984 million. His areas of technical expertise include electrical power distribution, substation design, alarm systems, communications, lighting, lightning protection, power quality, energy efficiency and code compliance.

RELEVANT PROJECT EXPERIENCE

West Virginia ARNG Joint Armed Forces Reserve Center and Area Maintenance Support Activity, Ripley, WV – Electrical Engineer.

Preparation of a Program Planning Document Charrette (PPDC) for replacement of two local armories and a USAR center with aging facilities and site limitations, with a new, \$17 million Joint Armed Forces Reserve Center and support facilities on a 94-acre site. Resulting plans include an Armed Forces Reserve Center (60,927 SF), unheated storage (6,000 SF), area maintenance support (4,500 SF) and helipad.

West Virginia ANG 130th Airlift Wing Squadron Operations Facility Repair, Charleston, WV – Electrical Engineer. Design services for \$3 million renovation and energy-efficient improvements to 25,765 SF facility with history of remodeling activities resulting in a building that inadequately serves its users (Administration and Operations, Base Operations, Command Post, and Life Support and Fitness Center). Selected design allows for efficient use of space; HVAC, electrical and fire protection systems upgrade; and roof repairs. Designed to achieve USGBC LEED Certified rating, meet all ANG Sustainable Design criteria and utilize MILCON/SRM split funding.

West Virginia ANG 130th Airlift Wing Communications Facility, Charleston, WV – Electrical Engineer. Design (Type A and B, 65%) for a new \$3.6 million, 13,100 SF Communications Facility at Yeager Airport in Charleston for West Virginia Air National Guard, designed for LEED Silver rating, to provide a centrally located common user communications system for both intra-base and off-base communications, with ground control of all ground point-to-point contact and air to ground point-to-point contact (such as radio, telephone, DISNET, etc.). Design paused at 65% to enable base's master plan and re-prioritize new capital improvements.

West Virginia Division of Corrections Lakin Correctional Center Lightning Protection Improvements, West Columbia, WV – Project Manager. Lightning protection system ground study and improvements at 166,000 SF, medium-security, women's correctional facility in West Columbia, WV. Services included study of power distribution deficiencies, grounding study, as well as design and construction administration services for recommended new system.

Marshall University Weisberg Family Engineering Laboratory, Huntington, WV – Electrical Engineer. A/E design for a new, 16,000 SF Engineering Laboratory Building on the main campus providing laboratories for materials, soils, hydraulics, structural, and environmental studies, classrooms and faculty offices. Building security systems included access control and CCTV. HVAC systems feature rooftop VAV systems with variable electric reheat.

Indiana ARNG 76th Brigade Combat Team Readiness Center, Lawrence, IN – Electrical Engineer. Planning, design and construction administration services for a new 109,555 SF, 2-story Readiness Center and 8,300 SF unheated storage facility.

Kentucky ARNG Joint Armed Forces Reserve Center and Field Maintenance Shop, Paducah, KY – Engineering Manager. Engineering design for design / build delivery of a \$14.7 million complex of over 83,300 SF total in three buildings, meeting LEED Silver sustainable design rating, serving both Kentucky Army National Guard and U.S. Army Reserves. Provided: administrative areas; education space, 6 vehicle maintenance bays; assembly hall with kitchen; storage for general, flammable material, and controlled waste; security systems; and energy management and control systems. Site work included new grading and drainage improvements, stormwater detention, entry control point, roads, parking areas, vehicle wash rack, perimeter fencing and barriers, and AT/FP measures.

Indiana ANG 122nd Fighter Wing Security Forces Operations and Training Facility, Fort Wayne, IN – Principal-in-Charge. Conceptual design for design-build bridging document for a new \$3.86 million (FY07), 18,494 SF Security Forces Operations and Training Facility, including a Combat Arms Training and Simulator/Combat Arms Training Maintenance (CATS/CATM) area, providing offices for the Flight Chief, open office area for the base security forces, classrooms, workout room, locker room, weapons simulator room and weapons storage areas. Site work included grading, drainage and stormwater controls, new utilities, roads and parking areas and AT/FP measures.

Naval Facilities Engineering Command P230 Headquarters and Joint Operation Center, Camp Lemonnier, Djibouti – Principal. Design services for \$36.17 million, 51,000 SF administrative DoD headquarters and operational facility located in Africa within NAVFAC Command Area of Responsibility. Audio visual features with large screen arrays (most sophisticated, high-resolution equipment available) are facility's main feature. Designed to meet LEED Silver certification, building includes highly reliable, redundant support systems. MEP system includes secure N+1 electrical distribution system, fire alarms, electronic security systems, direct digital control system (DDC), N+1 mechanical system, fuel storage, potable/reclaimed water, chiller plant, fire suppression systems, electrical generator, UPS back up capacity, and fully compliant AT/FP facility.

Blue Grass Army Depot Personnel Support Facility, Richmond, KY – Electrical Engineer. Design-build project of approximately 7,500 SF, pre-engineered metal building including space for field office activities, conference rooms, locker and changing areas, and laundry and storage.

Wright Patterson AFB Building 802 Supercomputing Center Power Improvements, Wright-Patterson AFB, OH – Project Manager. Electrical design of power distribution system for Phase 6 of supercomputing center that houses a server farm that supports Air Force websites for technical computing. Design-build project added capacity for additional 2 MW (megawatts) of supercomputers and support loads. Primary service obtained from an existing 15 KV medium voltage switchgear lineup in the electrical equipment yard.

David Hoy, PE | GRW Structural Engineer



YEARS OF EXPERIENCE:

With GRW: 11

Total: 11

EDUCATION

B.S., Civil Engineering, 2006,
West Virginia University

REGISTRATION

Professional Engineer: WV, KY

PROFESSIONAL AFFILIATIONS AND TRAINING

American Society of Civil
Engineers

David has completed the investigation, analysis, and design of various building structures, including foundation design. In addition to building structures, David also has experience with water/wastewater projects involving the design of below grade concrete structures and elevated structural slabs. He also reviews shop drawings and performs periodic site visits.

RELEVANT PROJECT EXPERIENCE

West Virginia ANG 167th Airlift Wing C-17 Composite Material Shop, Martinsburg, WV – Structural Engineer. Fast-track design of composite material shop to the existing corrosion control hangar required to meet 167AW's change in mission from C-5 to C-17 aircraft.

West Virginia ANG 167th Airlift Wing C-17 Corrosion Control Hangar Modifications, Martinsburg, WV – Structural Engineer. Fast-track design of corrosion control hangar modifications required to meet 167AW's change in mission from C-5 to C-17 aircraft.

West Virginia ANG 167th Airlift Wing C-17 Fuel Cell Hangar Modifications, Martinsburg, WV – Structural Engineer. Fast-track design of fuel cell hangar modifications required to meet 167AW's change in mission from C-5 to C-17 aircraft.

West Virginia ANG 167th Airlift Wing C-17 Maintenance Hangar Modifications, Martinsburg, WV – Structural Engineer. Fast-track design of maintenance hangar modifications required to meet 167AW's change in mission from C-5 to C-17 aircraft.

Canaan Valley Resort State Park Improvements, Canaan Valley, WV – Structural Engineer. Upgrades include new tubing park featuring 12-lane tube run in excess of 800 feet long with vertical drop of 90 feet; tubing lodge with wood-burning fireplace, restrooms, concession stand, and outdoor patio; storage building; new beginners slope and ski school area; renovations at main ski lodge (Bear Paw Lodge); and wobble clay shooting range.

McHenry Fire Station, McHenry, KY – Structural Designer. Planning, design, and construction phase services for one-story, 3,500 SF fire station that has three truck bays with overhead doors, as well as gear storage, lockers, a shower room, restrooms, and a multi-purpose room with an adjacent kitchen.

Saint Albans Fire/Police Station, Saint Albans, WV – Structural Engineer

Coal Heritage Trail Authority: Historic Building Restoration/Renovation, Mt. Hope, WV – Structural Engineer

Canaan Valley State Park: Ski Area Improvements, Tube Park/Lodge, Canaan Valley, WV – Structural Engineer

WV DOH Rest Areas and Welcome Centers: New Construction, Various locations throughout WV – Structural Engineer

Harvey Helm, PE, LEED AP, PLS | GRW Civil Engineer



YEARS OF EXPERIENCE:

With GRW: 44

Total: 44

EDUCATION

B.S., Civil Engineering, 1977,
University of Kentucky

REGISTRATION

Professional Engineer: KY, KS,
TN, IN, OH, MS, GA, NC, AL, AR,
WV, NY, VA, NM, AZ, WA, TX

LEED Accredited Professional

Professional Land Surveyor: KY

PROFESSIONAL AFFILIATIONS AND TRAINING

National Society of Professional
Engineers

Kentucky Society of Professional
Engineers

Soil and Water Conservation
Society

Harvey's experience as a civil engineer is broad and encompasses land surveying, drainage facilities, streets and roads, site development and site utilities. He is very proficient in the technical elements that make up civil engineering projects of all sizes and has the management skills to produce quality and efficient projects. Harvey's federal government experience includes site development for projects in excess of \$180 million, as well as small task orders under indefinite delivery/indefinite quantity contracts. Harvey has completed more than 50 projects for the U.S. Army Corps of Engineers, Bureau of Prisons, National Guard Bureau and the U.S. Air Force.

RELEVANT PROJECT EXPERIENCE

West Virginia ANG 167th Airlift Wing C-17 Munitions Storage,

Martinsburg, WV – Project Manager. New munitions inspection building, five magazines (all pre-manufactured modular units), new concrete pads (2,865 SF), all-weather pavement (5,566 SF) for vehicular access, gate/fencing, utilities, exterior lot lighting, communications, and security for the munitions area.

West Virginia ANG 167th Airlift Wing C-5 Apron Repair, Martinsburg,

WV – Project Manager. Evaluation and design services to repair fractured/heaved C-5 apron caused by poorly draining base and sub base. Pavement repair of approximately 1,755 SY includes demolition and removal of fractured and heaved pavement down to below original base and sub base, compaction of new material, placing of sub base and base and concrete pavement parking apron, asphalt shoulder stabilization, all constructed to support C-5 aircraft. Utility and site improvements will also be included.

West Virginia ARNG Camp Dawson Ranges, Kingwood, WV – Civil

Engineer. Project includes design and construction of new Hand Grenade Familiarization Range and Live Fire Exercise Breach (LFEB) Training Range at Briery Mountain Training area to conform site to government standard Breach Range Design Requirements. Included design of access road to the remote site, electrical connections, breaching structures, open covered range operations and control shelter, storage building, dry latrine, covered viewing stands, and parking area.

West Virginia ANG 130th Airlift Wing Communications Facility,

Charleston, WV – Civil Engineer. Design (Type A and B, 65%) for a new \$3.6 million, 13,100 SF Communications Facility at Yeager Airport in Charleston for West Virginia Air National Guard, designed for LEED Silver rating, to provide a centrally located common user communications system for both intra-base and off-base communications, with ground control of all ground point-to-point contact and air to ground point-to-point contact (such as radio, telephone, DISNET, etc.). Design paused at 65% to enable base's master plan and re-prioritize new capital improvements.

Blue Grass Army Depot Personnel Support Facility, Richmond, KY – Civil

Engineer. Design-build project of approximately 7,500 SF, pre-engineered metal building including space for field office activities, conference rooms, locker and changing areas, and laundry and storage.

West Virginia ANG Yeager Airport Pavement Design, Charleston, WV – Project Manager. Pavement investigation/analysis, subsurface investigation, and design for grade, drain and surfacing construction plans for all air base pavements: Work included replacement of approximately 9,000 SY of taxiway and 33,000 SY of apron pavement; 27,000 SY of new perimeter taxiway for future expansion as an aircraft apron; and 10,600 SY of new apron/holding pad capable of providing two C-130 H aircraft for preflight check operations.

Ohio ARNG Joint Armed Forces Reserve Center and Field Maintenance Shop Complex, Springfield, OH – Civil Engineer. Project Planning Document Charrette and design for new LEED Silver Certified 85,865 SF complex serving both Ohio Army National Guard and U.S. Army Reserves. Functional spaces include administrative, educational (classrooms, weapons simulator, distance learning, training-specific libraries, COMSEC), assembly hall and kitchen, general storage, flammable materials storage and controlled waste facilities, and 10 drive-through work bays (6 for ARNG, 4 for USAR). Site work included extension of utilities from adjacent ANG base, grading, drainage and stormwater detention, perimeter fencing and entry point control, parking and access roads, wash platform, AT/FP measures, and geothermal system for heating and cooling.

Indiana ANG 122nd Fighter Wing Security Forces Operations and Training Facility, Fort Wayne, IN – Civil Engineer. Conceptual design for design-build bridging document for a new \$3.86 million (FY07), 18,494 SF Security Forces Operations and Training Facility, including a Combat Arms Training and Simulator/Combat Arms Training Maintenance (CATS/CATM) area, providing offices for the Flight Chief, open office area for the base security forces, classrooms, workout room, locker room, weapons simulator room and weapons storage areas. Site work included grading, drainage and stormwater controls, new utilities, roads and parking areas and AT/FP measures.

Georgia ANG 116th Wing B-1B Bomber Beddown and Composite Aircraft Maintenance Hangar Complex, Robins AFB, GA – Civil Engineer. Fast-track design for a new 76,000 SF B-1B bomber hangar complex comprising two bays, 2-story office administration areas with shop and maintenance service areas located on the ground floor, space for aircraft fuel system maintenance, corrosion control program activities, and the needed utilities and special systems required, with expansion capability to house C-17 aircraft. Separate hangar bays (50' height) house fuel cell and corrosion control functions, each requiring specialized humidity, vapor removal, and shop and breathing air utilities.

Blue Grass Army Depot Main Entry Control Facility and Battlefield Memorial Highway Revisions, Richmond, KY – Principal. Design and construction administration services for design-build project at main entry control facility (ECF). Revisions at main ECF involve removing, closing, and relocating it to current parking lot entrance, as well as widening and providing KYTC-required improvements, such as new traffic signals, warning signals, and revised signage to U.S. 421 at new entrance. ECF structures, signage, fencing, utilities, pavement, and pedestrian facilities improvements are also included.

Joe Bird, PLA, ASLA | GRW Landscape Architect



YEARS OF EXPERIENCE:

With GRW: 33

Total: 40

EDUCATION

B.S., Landscape Architecture,
1978, West Virginia University

REGISTRATION

Professional Landscape
Architect: WV, KY, IN

PROFESSIONAL AFFILIATIONS AND TRAINING

West Virginia Chapter of the
American Society of Landscape
Architects

Joe is a project manager and registered landscape architect. His experience ranges from large site development projects to the management of multidiscipline and architectural projects. He has been involved in parks and recreation projects for most of his career. Most recently he has been involved in the development of trails, sidewalk, streetscape and parks projects in West Virginia, Kentucky and Indiana.

RELEVANT PROJECT EXPERIENCE

West Virginia State Capitol Hardscape Restoration, Charleston, WV – Project Manager. Evaluation, prioritized recommendations, and design services for restoring hardscape around historic West Virginia State Capitol campus. Hardscape includes sidewalks, entranceways, plazas, promenades, and steps.

West Virginia Department of Highways District 1 Vehicle Maintenance and Equipment Shops Building, Charleston, WV – Principal. Approximate 35,000 SF facility includes: 8 heavy vehicle repair bays; 6 light vehicle repair bays; 2 welding bays; wash bay; small engine shop; parts and tire storage areas; offices; 2 cranes serving repair bays; 1 crane serving entire weld shop area; freight elevator; perimeter fencing; keycard entry system; and generator. Structure features cavity walls with concrete panel backup, petroleum resistant concrete floors, and metal roofing over rigid insulation, metal decking, and bar joists.

West Virginia Department of Highways District 1 Campus Master Plan, Charleston, WV – Project Manager. Master plan for redevelopment of District 1 campus in downtown Charleston. Work included evaluation of several existing buildings to determine renovation/demolition status; preparation of phased development plan to prioritize demolition/renovation/new construction projects; development of parking and vehicular circulation patterns; and design of utility upgrades and stormwater detention system.

West Virginia Department of Highways District 1 Smith Street Streetscape, Charleston, WV – Project Manager. Streetscape design – including street lights, trees, and decorative brick bands – for entire block of Smith Street from Morris Street to Ruffner Street. Existing overhead utilities will be placed underground. On-site stormwater storage, bioswales, and stormwater infiltration and filtration design will mitigate impact of large storm events for area with history of frequent flooding.

West Virginia State Parks Picnic Shelters, WV – Project Manager. Concept design for picnic shelters to be constructed at multiple locations around state. Each shelter is designed for over 100 people and will include warming kitchen and restrooms.

Upper Big Branch Miners Memorial, Whitesville, WV – Principal. Award-winning memorial designed to honor the memory of 29 miners who died in a 2010 mining disaster. The memorial's centerpiece is a 48-foot long, 8-foot high, granite monument cut to reflect the mountains of West Virginia and etched with silhouettes to represent the lost miners. Designed to be visible from highway; also provides intimate spaces for quiet contemplation and opportunities for learning about West Virginia's coal heritage.



RANDY L. MOULTON, PE
PRINCIPAL ENGINEER



EDUCATION

West Virginia University, WV
BS, Civil Engineering
MS, Civil Engineering
(Geotechnical)

PROFESSIONAL EXPERIENCE

40 Years

REGISTRATIONS & LICENSES

- Registered Professional Engineer
 - PA
 - VA
 - MD
 - WV
 - OH
 - IL
 - NC
 - KY
 - TN
- NCEES Record [REDACTED]

SKILLS

- Geotechnical Analysis & Reporting
- Construction Materials Testing & Inspections
- Rock-Socketed Caisson Design
- Groundwater & Seepage
- Earth and Rock Dams
- Landfills

HIGHLIGHTS OF EXPERIENCE

Mr. Moulton is a Principal Engineer for Triad Engineering, Inc. In this capacity, he has the responsibility for corporate contract administration, risk management and overall quality control and technical quality assurance of projects undertaken by the company. Specific technical activities include preparation of geotechnical proposals, review and/or preparation of subsurface exploration programs, evaluation of geotechnical data and review and preparation of detailed geotechnical reports. Mr. Moulton has also been responsible for managing design of corrective measures at three sanitary landfills under the Landfill Corrective Action Program (LCAP) in West Virginia and characterization and design of remedial measures for an old landfill in Virginia.

RELEVANT PROJECT EXPERIENCE

Winchester Water Main Transmission Line, Warren and Frederick Counties and Winchester, VA

Principal Engineer for geotechnical exploration for replacement of an existing water main running approximately 14 miles from Warren County to the City of Winchester. The majority of the replacement was completed along the same alignment as the existing main. However, specific localized explorations were focused on several major crossings to be constructed by "jack and bore" or horizontal directional drilling (HDD) methods beneath Interstate I-81, VA Route 37 and U.S. Route 11 as well as several railroad crossings.

Jefferson County Pump Stations, Jefferson County, WV

Principal Engineer for geotechnical exploration of three (3) wastewater pump stations. Explorations focused on evaluation of hard rock which would be encountered in excavations ranging from 35 to 40 feet below existing grades.

Mineral County Pump Stations, Mineral County, WV

Principal Engineer for geotechnical exploration of seven (7) wastewater pump stations for the Frankfort Public Service District (PSD). Explorations were focused on evaluating stability and defining materials which would be encountered in the excavations for the stations ranging from approximately 17.5 feet to 23.5 feet below existing grades.

Charles Town Water Treatment Plant (WTP) Improvements, Charles Town, WV

Principal Engineer for geotechnical exploration for several new treatment components including a one (1) million-gallon contact tank, a thickener, a settlement basin and a pump station.

Charles Town Wastewater Treatment Plant (WWTP) Upgrades (Phase I), Charles Town, WV

Principal Engineer for geotechnical exploration for several new treatment components including an alum storage unit, a methanol storage unit, a post-EQ basin, valve vault, compressor building and a new filter unit. Special attention was focused on soft soils which were encountered at the bearing levels for some of the structures and evaluation of conditions for deep excavations required for construction.

Grant County Landfill, Petersburg, WV

Served as Project Manager for several design projects for this LCAP facility. Work initially included design of interim corrective measures for fugitive leachate seeps, failing leachate collection lagoons, and inadequate stormwater management. Further work included design of a leachate sewer system including two grinder pump stations, force main and gravity line

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to eliminate pump and haul expense and deliver leachate to the local sewer system. The final design and construction project included a permanent closure cap, additional leachate interceptor trenches, passive gas vents, and additional stormwater management facilities to comply with NPDES requirements.

Morgan County Landfill, Morgan County, WV

Project Manager and Senior Engineer for design of permanent closure measures for this 17-acre landfill under the WVDEP LCAP program. The project included design of a leachate collection system, a leachate storage tank, a new permanent access road, a surface water collection system, two new stormwater management ponds and a final closure cap. The project also required permitting through several state agencies and construction monitoring and materials testing services. Subsequent design work after the initial closure included corrective measures for erosion problems, regrading and enhanced soil amendments for revegetation.

Marion County Landfill, Marion County, WV

Project Manager and Senior Engineer for design of permanent closure measures for two (2) adjacent landfills under the WVDEP LCAP program. The project included design of a leachate collection system including two (2) leachate pump stations and a leachate storage tank, a new permanent access road, a surface water collection system, several new stormwater management ponds and a final closure cap. The project also required permitting and construction monitoring and materials testing services.

Winchester Medical Center, Winchester, VA

As Principal Engineer, responsible for preparation and/or review of numerous proposals and detailed reports for geotechnical investigations at this growing regional hospital. Activities involve meeting with facilities design and construction management personnel, interaction with architectural firm and construction management firm, review of all technical data and evaluation of foundation construction alternatives. The new hospital was completed in 1990, and new facilities which have been added since then, including an imaging center, a same day surgi-center, an additional day care center, two 3-story medical office buildings, several operating rooms, an expanded emergency department and a 4-story parking garage. Worked closely with the structural engineer on the parking garage project to develop reinforced strip footings designed using modulus of subgrade reaction in lieu of drilled piers, saving over \$100,000 in foundation construction costs.

Mary Babb Randolph Cancer Center, Morgantown, WV

Senior Engineer for geotechnical investigation of a multi-story cancer research and treatment facility located immediately adjacent to West Virginia University Hospital and Medical Center. Evaluations included deep excavations for construction of two levels underground and making use of moderate capacity spread footings constructed on weathered rock.

Chestnut Ridge Psychiatric Care Facility, Morgantown, WV

Senior Engineer for geotechnical investigation of a site for a two-story psychiatric care facility. Special considerations included treatment of excavation of basement level into pyritic shale. Recommended use of bituminous waterproofing of exposed shale to limit movement of water and air and compressible material behind basement walls to accommodate some swell and limit lateral displacement associated with these swelling shales.

Jefferson County Schools, Jefferson County, WV

From 1990 to 2004, served as the Contract and Project Manager for geotechnical investigations for several new schools and additions to existing schools, including elementary, intermediate and high schools. The majority of these schools were located in solution-prone karst terrain requiring special assessment of sinkholes and other solutioning features.

General Motors Distribution Facility, Berkeley County, WV

Principal and engineer in charge of geotechnical engineering, civil engineering, and surveying of new 400,000 square feet distribution facility.



RAYMOND A. STROTHER II, PE
GEOTECHNICAL ENGINEER



EDUCATION

*West Virginia University
BS, Civil Engineering*

*Potomac State College
AS, Civil Engineering*

PROFESSIONAL EXPERIENCE

10 years

REGISTRATIONS

- P.E. West Virginia
- NCEES Record
- Troxler Nuclear Moisture Density Gauge Operator
- MSHA

SKILLS HIGHLIGHTS

- Drilling Inspection
- Geophysical Surveys
- Soils Classification
- Geotechnical Analysis & Reporting

HIGHLIGHTS OF EXPERIENCE

Mr. Strother has over ten (10) years of geotechnical engineering and geophysics experience. His responsibilities include monitoring geotechnical investigations, geophysical testing, site construction testing and monitoring, shallow and deep foundation inspections, and pre-blast surveys. Project experience includes logging soil/rock borings, air-track probes and test pits for geotechnical investigations, coordination and overseeing drilling crew and operations, preparation of geotechnical investigations, QA/QC monitoring materials testing.

RELEVANT PROJECT EXPERIENCE

Lowes at Riverton Commons, Warren County, VA

As staff engineer, was tasked with overseeing proof-drilling and pressure grouting operations for a Lowes building situated in karst terrain. Duties included monitoring of quantities and grouting pressures and documentation of rock conditions during proof-drilling.

Valley Health Systems, Various projects, Winchester, VA

Coordinated with utility companies and Valley Health Systems personnel due to multiple public and private utilities present with the property prior to drilling operations. Performed caisson inspections, logging soil, sewer video inspection, rock and groundwater conditions and supervision of the drill crew.

Lake Cherokee Dam, Frederick County, VA

Tasked with monitoring drilling and pressure grouting operations. The grouting operations were conducted to establish a "grout curtain" for the prevention of further draw down of Lake Cherokee. Duties included monitoring of quantities and grouting pressures and documentation of rock conditions during drilling.

Morgan County Landfill, Morgan County Landfill, WV

Coordinated drilling operations with client, logged borings and test pits to determine the existing ground cover and limits of the existing refuse cells. Monitored methane levels at select boring and test pit locations. Measured discharge rates for each leachate collection pond.

Westminster at Lake Ridge, Prince William County, VA

Utilizing Ground Penetrating Radar equipment to delineate post tension cables within existing concrete slabs for the remodeling of the facility.

Keyser-McCoole Bridge, Keyser, West Virginia

Performed inspection services of recovered soil and rock samples obtained by the sub-contractor for the new Route 220 bridge alignment.

WVDOH, Route 522 Bypass at Berkeley Springs, Morgan County, WV

As project geologist, coordinated field investigation of WVDOH Core Boring Contract for the U.S. Route 522 Bypass at Berkeley Springs, West Virginia. Project included approximately 5,400 linear feet of borings for approximately 6 miles of roadway and associated structures. Supervised sampling, bore logs, and acted as liaison between drilling sub-contractor and prime consultant.

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Building 900, Proctor & Gamble Manufacturing Facility, Berkeley County, WV

QA/QC Civil Engineer for new 550,000 square foot pre-engineered metal building that is a portion of an overall 3.5M square foot manufacturing facility. Responsibilities include project management, client coordination and certification of testing and inspection services. These services included soil, concrete, reinforcing steel, grout, masonry, micro-pile monitoring and structural steel.

Knauf Insulation Inwood Plant Upgrades, Berkeley County, WV

Geotechnical Engineer of Record and QA/QC Civil Engineer for new plant upgrades that included new load out pit, exhaust stacks, large equipment foundations and water softener systems. Responsibilities include project management, client coordination and certification of testing and inspection services and sinkhole remediation. These services included soil, concrete, grout, masonry, reinforcing steel, shallow foundations, micro-pile monitoring and structural steel.

The Crossing at Martinsburg, Berkeley County, WV

QA/QC Civil Engineer for two-story 84,000 square foot assisted living facility. Responsibilities include project management, client coordination and certification of testing and inspection services. These services included documenting rock quantities, soil, concrete, asphalt, grout, masonry, reinforcing steel shallow foundations and structural steel.

Moorefield High School Additions and Alterations, Hardy County, WV

QA/QC Civil Engineer for single and two-story additions to the existing High School. The project included demolition of the existing main school structure, auditorium, and locker room structures. Responsibilities include project management and certification of testing and inspection services. These services included soil, concrete, grout, masonry, reinforcing steel, shallow foundations, asphalt and structural steel.

Martinsburg WWTP, Martinsburg, WV

QA/QC Civil Engineer for construction of a headworks facility, primary and secondary clarifier improvements, biofilm reactors, various storage and feed facilities, disinfection tank expansion, piping modifications, solids dewatering facilities, digestion improvements, operations building addition, electrical service distribution, emergency generator improvements and non-potable water pumping improvements. Responsibilities include project management and certification of testing and inspection services. These services included soil, concrete, asphalt, grout, reinforcing steel, caisson installation, shallow foundations and structural steel.



JEFFREY H. MITCHELL, CPG, LRS
 SENIOR ENVIRONMENTAL GEOLOGIST



EDUCATION

West Virginia University, WV
 BS: Geology

PROFESSIONAL EXPERIENCE
 30 Years

REGISTRATIONS & LICENSES

- Certified Professional Geologist (VA)
- Licensed Remediation Specialist (WV)
- Registered Professional Geologist (KY, NC, PA, TN)
- Licensed Asbestos Inspector (VA, WV)
- Environmental Site Assessments for Commercial Real Estate - ASTM International
- 40-Hour Hazardous Waste Operations and Emergency Response (HAZWOPER) Worker & 8-Hour Supervisor

SKILLS HIGHLIGHTS

- Technical Scopes
- Peer Reviews
- Project Management
- Public Meetings

HIGHLIGHTS OF EXPERIENCE

Mr. Mitchell has more than 30 years of professional experience and is currently a Senior Environmental Geologist for Triad Engineering, Inc.

RELEVANT PROJECT EXPERIENCE

Alex Ricki Memorial Soccer Complex, Morgan County, West Virginia

The site is a former salvage yard, furniture finisher, service station, and apple orchard. Contaminants of concern included lead arsenate, organochlorine pesticides, and petroleum hydrocarbons. Supervised the approximate \$60,000 Phase I and Phase II Environmental Site Assessments (ESAs) and wetland delineation of the site. The Phase II ESA included a site-specific Field Sampling Plan, Quality Assurance Project Plan with validation of laboratory analytical data. Sampling media included soil (surface and subsurface), surface water, and groundwater. In 2013, a \$200,000 USEPA Brownfields Cleanup Grant was received by the Morgan County Board of Education. As the WV LRS, prepared the WV Voluntary Remediation Program (VRP) application and agreement (VRA), the Remedial Action Plan (RAP), and Health and Safety Plan (HASP) and assisted with the preparation of the Cleanup Bid Documents and Cleanup Contract. After satisfactory remediation, a Certificate of Completion (COC) was issued by the WV Department of Environmental Protection (WVDEP) on June 6, 2017.

Former Shepherdstown Dump, Shepherdstown, West Virginia

As the LRS, assisted the Jefferson County Development Authority by managing the cleanup of the former Shepherdstown Municipal Dump through a \$200,000 USEPA Brownfields Cleanup Grant. Prepared the WV VRP application and VRA, the RAP, and HASP and assisted with the preparation of the Cleanup Bid Documents and Cleanup Contract. Provided oversight of the cleanup activities that included the removal of the waste and a risk assessment to evaluate whether additional cleanup of soils was warranted for the proposed future use of the site as the new Shepherdstown Library. After satisfactory remediation, a COC was issued by the WVDEP on December 15, 2014.

Former Southern States Cooperative Bulk Plant, Martinsburg, West Virginia

The site was used as a bulk petroleum storage facility. The site contained both above and underground storage tanks (ASTs & USTs). During removal of the tanks in 1990, liquid, residual, and dissolved phase petroleum hydrocarbon contamination were discovered. Over a period of 16 years, different remedial technologies were employed by other consultants to capture liquid phase contamination and to remediate residual and dissolved phase contamination including land farming and incineration of soils and pumping and treating of groundwater. In 2008, Triad installed a mobile dual phase remediation system (liquid ring pump) to further remediate the site. As the LRS, guided the site along the Uniform Environmental Covenants Act (UECA) path to No Further Action (NFA) status after completion of an updated Site Assessment and Risk Assessment and recording of Land Use Covenants (LUCs) with the property deed. On October 3, 2012, the former Southern States Cooperative Bulk Plant site became the first site in WV to enter into a Leaking Underground Storage Tank (LUST) UECA agreement with the WVDEP, complete a Final Report, and receive a NFA status.

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4.0 Project Management and Quality/Cost Control

Project Management

Our approach to managing your project is straightforward: assemble the best and brightest design talent with knowledge of the national guard/military projects; bring an open mind and fresh perspectives; and remain accountable to you throughout the process for cost control/budget. The relationship between you and your chosen design consultant is critically important. The cornerstone of the GRW design approach is collaboration. Communicating in an open dialog, where ideas can be freely expressed and considered, helps to vest everyone in the project's success, and is a vital prerequisite to ensuring buy-in from all project stakeholders. The following provides a general overview of our process.

Kickoff/Charrette

We will have an initial meeting with you and the primary project stakeholders to discuss in detail your project goals, options for accomplishing those goals, and budget and schedule requirements for the work. Following this meeting, we issue a written record of our discussions.



Existing Conditions

We will take stock of the existing building, through an examination of existing documentation and field observations. We will identify existing conditions that are not in compliance with current codes and standards, including, but not limited to, UFAS compliance, life-safety compliance, and state/federal facility requirements.

At the conclusions of this step we will create a report that outlines the condition of the existing building components and systems that will be affected by the work of this project. This information will include the identification of existing hazardous materials.

A1 & A2 Schematic Design

Using the information from the Kickoff/Charrette and analysis of existing conditions, we will proceed with developing a schematic design.

We will present this concept to you through the use of drawings, product information sheets, written narratives and an initial cost estimate. After your review of the material, we will meet together to go over the design review comments, review the budget, and document any desired revisions. We will repeat this process as needed to reach an acceptable solution that meets your goals and budget.

We will also discuss with you ideas for minimizing the impact of construction on your day-to-day operations. This can include phasing the construction, to plan the sequence of work around times when certain spaces are normally unoccupied. We will document each step of the process with thorough meeting minutes.

B1, B2 & B3 Construction Documents

Using the approved Schematic Design documents, the design team will proceed with Design Development docs which likewise, are issued for Owner/User review and approval before proceeding to completion of Construction Documents for bidding.

The Estimate of Probable Cost is updated at each design review submittal to check the estimate against the drawings and specs, to make sure the work remains within budget. We will also reconfirm final decisions on materials, equipment, and finishes.

If needed, we will incorporate a phasing plan into the final documents to minimize the impact of construction on the facility's day-to-day operations.

The final construction documents will consist of drawings, specifications, and instructions to bidders. The completed documents are then ready for bidding.

Construction Phase

The same Project Manager you worked with throughout design continues as your point of contact through the entire construction process. Also, the original designers are the team to review shop drawings, attend meetings and observe the work in progress. This provides a continuity that benefits the project, and is an integral part of our quality control process.



GRW manages and tracks our construction administration and resident inspection responsibilities using **Newforma®** Project

Center (project information management software); this ensures that the process is transparent to all parties. Newforma has built-in modules specifically developed for the A/E industry. **Using this system, Owners, Design Team, and Contractor/GC all have access to real-time logs showing the current status of all construction-related activities.**

During project construction, GRW provides consultation and advice on construction matters including visits to the site to check work progress and quality and to evaluate general conformance with the contract documents.

In addition, we review laboratory, shop and on-site tests of equipment and materials related to the submittals. Once reviewed, copies of submittals, with comments, are distributed to the team members (Owner, Contractor, etc.) for appropriate action. A comprehensive submittal file is maintained in the Newforma software.

Our team members review and recommend progress payments to the construction contractor based on observation of the work in-place. Project costs automatically update for tracking of project budgets.

Our team performs semifinal inspections of the project and creates a list of work yet to complete prior to the final technical inspection. Upon completion, we will provide a set of record drawings based on mark-ups from the contractor, to show field changes made during construction. These drawings are reviewed by the Project Manager and serve as the record drawings for the project and are suitable for facility management.

Changes

The GRW project team will not approve any change that affects project cost, time or quality without your approval, and then only after a thorough discussion and vetting of the reasons for the change. Contractor cost proposals are carefully reviewed to ensure the proposed costs are fair and reasonable. When needed, GRW will negotiate on your behalf to reach an equitable solution.

Flexibility

These procedures are not cast in concrete, as GRW prides itself on being an organization which seeks to simplify and expedite procedures that can impede the work and stifle creative people. Sometimes these procedures are streamlined for smaller projects, and sometimes they are more formalized for larger projects but at all times they remain flexible to accommodate the needs of our client's organizations. We want you to be satisfied with the quality of your facility: the bottom line is that GRW cares a great deal about securing repeat business with our clients.

GRW and its subsidiary Chapman Technical Group (offices in St. Albans and Buckhannon, WV) have extensive experience in developing projects through the WV Purchasing Division. For many years, we have designed, bid, and constructed numerous, major Division of Natural Resources projects throughout the state. The West Virginia Division of Highways (DOH) recently began working with the State's Purchasing Division for building projects, and our \$10 million equipment shop building for District One was the first project that the DOH bid through the WV Purchasing Division. Our knowledge and experience of the State's purchasing procedures made this an easy transition for all stakeholders. Although every agency has its own particulars with regard to bidding projects, our experience with the West Virginia Purchasing Division will help ensure effective and efficient project delivery.

Quality & Cost Control

At GRW, cost control, scheduling and value engineering are daily components of design rigor. Project planning decisions are assessed in weekly project meetings with all A/E disciplines to confirm budgets and schedules will be met. During these sessions, project status is discussed to direct adequate resources to meet the project schedule. The issues tracking list we create is reviewed to ensure problems are resolved before they impact the schedule or budget. Our vision as your full-service architectural and engineering design firm is to partner with you to simplify the design and construction process for the results you intend.

Quality Control

Shane Lyle, our Project Manager, has primary responsibility for the daily management and coordination of the project team. With over 35 years of experience, he has a clear understanding of the most effective methods for maintaining the programming, planning, and design schedule.

COMMUNICATION: At GRW, our highest project-management priority is focused on maintaining clear and effective communication throughout the entire project. This focus includes our communication with you and your stakeholders, with the Contractor, and with our internal design team members. Key to this effort is our use of Newforma project information management software, which allows the storage, sharing, and retrieval of project information both internally and externally.

PROJECT MANAGER: Our process begins initially with the assignment of an experienced Project Manager who is responsible for organizing the design effort and who manages the Quality Control process. While a project design team may involve many different departments or groups, the Project Manager has the ultimate authority over the project at all times.

A key element in effective Quality Assurance/Quality Control (QA/QC) is the use of regularly scheduled progress meetings. A kickoff meeting between key members of GRW's proposed project team and your management and staff will be held to ensure a common understanding of the goals and objectives among all project partners. These issues will be

reviewed and the work plan will be discussed in detail. Lines of communication and coordination will be established. Regular meetings will then be scheduled throughout the project to report on project progress and to review technical issues. These meetings provide a forum for discussing concerns and ideas. The assigned Project Manager is the primary conduit for communication between you and the design team.

TEAM MANAGEMENT: QA/QC is enhanced at GRW since most design disciplines are in-house. Because of this, scheduling internal team meetings or over-the-shoulder reviews is greatly simplified. On this project, the Project Manager will conduct weekly team meetings with the design team members to facilitate coordination of design issues. Any design problems are identified along with a path for their correct resolution. A checklist managed by the Project Manager is used to track the resolution of issues from meeting-to-meeting.

SCHEDULE MANAGEMENT: No QA/QC process can succeed without allocating sufficient time for internal review. The Project Manager will develop a proposed internal design schedule at the beginning of the project for appropriate time for internal review. These internal reviews typically occur prior to normal design submittal dates for the project.

QUALITY CONTROL REVIEWS: QC reviews at GRW includes desk-to-desk, task-to-task, and person-to-person crosschecking of work that takes place on a regular basis within the company. Impromptu meetings to discuss specific issues take place as often as needed. The peer review personnel are determined by the Project Manager at the beginning of the project, and remain consistent throughout the course of the project.

QUALITY ASSURANCE: A major advantage of providing all design disciplines within the same firm is the opportunity to streamline communication and work flow resulting in a well-coordinated set of construction documents. By close collaboration throughout the design stage, ideas can be quickly discussed and evaluated to understand impacts on cost, schedule and effectiveness.

PROGRAMMATIC OVERSIGHT: The Project Manager is tasked with maintaining oversight of the project as the design develops, to insure that the design decisions are in keeping with the programmatic criteria developed with you at the project's initiation. At each interim submittal, the Project Manager takes a step back, and looks at the project in broad terms to insure that the design is progressing in accordance with the original criteria.

Cost Control

PROJECT BUDGET ACCOUNTABILITY: Government officials are accountable to the public for the expenditure of public monies. The GRW team understands this obligation and develops a project design that is cost-effective and delivers an efficient and appropriate use of funds assigned to the military. Rarely do projects have sufficient budget to accommodate everything on the programmatic *wish list*. Reconciling the program against the project

budget is done early and often in order to guide the project to a successful conclusion. GRW approaches this process in a pragmatic and open manner. This subject will be on the agenda of every project meeting we have with you for open and frank discussion so that everyone is kept abreast of any potential concerns. Prioritizing the program relative to the budget can be a difficult task, with different stakeholders sometimes at odds over how to resolve differences of opinion. GRW excels at guiding this process and helping you to resolve these differences.

GRW has a strong history of successful estimating of projects, and our design experts will draw upon this knowledge during the development of our construction cost estimates.

We can also develop a list of possible value-engineering for consideration to help manage construction costs and give you the most construction value for your dollar.



GRW provided design and construction phase services for the WV ANG's 130th Airlift Wing Building 107 Renovation. With a construction budget of \$5M, the awarded bid was \$4,941,290, and the final construction cost was \$4,991,876 (within 1% of awarded bid).

5.0 References

GRW understands that professional consulting begins as a relationship built on trust. We fully understand the importance of gaining your respect, proving our worth, and being there long after your successful project is completed. With repeat clients providing more than 90 percent of GRW's current workload, we believe this is a testament to our business philosophy of providing close, personal, high quality service. We invite you to contact our references to verify GRW's performance.

West Virginia Army National Guard

MAJ Robert Kincaid, Jr.
(304) 791-4459
robert.j.kincaid.mil@mail.mil

West Virginia Air National Guard

Capt. Harry Netzer, Deputy BCE
(304) 341-6649
harry.g.netzer.mil@mail.mil

Maj. Emerson C. Slack, Deputy BCE
(304) 616-5233
emerson.c.slack.mil@mail.mil

Ohio Army National Guard

George McCann, Project Manager
(614) 336-7413
george.c.mccann@us.army.mil

West Virginia Division of Corrections

Philip Farley, II, Director of Engineering
and Construction
(304) 558-2036
Philip.K.Farley@wv.gov

Frankfort Plant Board, Frankfort, KY

Sharmista Dutta, PE, Project Manager
(502) 352-4407
sdutta@fewpb.com
(New Administration Building Shown Below)





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

State of West Virginia
 Centralized Expression of Interest
 02 — Architect/Engr

Proc Folder: 530551

Doc Description: EOI- Wheeling AASF#2 Aircraft Hangar Addition

Proc Type: Central Purchase Order

Date Issued	Solicitation Closes	Solicitation No	Version
2019-01-04	2019-01-25 13:30:00	CEOI 0603 ADJ1900000013	1

BID RECEIVING LOCATION

BID CLERK
 DEPARTMENT OF ADMINISTRATION
 PURCHASING DIVISION
 2019 WASHINGTON ST E
 CHARLESTON WV 25305
 US


VENDOR

Vendor Name, Address and Telephone Number:

GRW
 801 Corporate Drive
 Lexington, KY 40503
 (859) 223-3999

FOR INFORMATION CONTACT THE BUYER

Stephanie L Gale
 (304) 558-8801
 stephanie.l.gale@wv.gov

Signature X  FEIN# 61-0665036

DATE 1/23/2019

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

ADDITIONAL INFORMATION:**35% DESIGN AWARD PROCESS**

The West Virginia Purchasing Division, for the agency, the West Virginia Army National Guard, Construction and Facilities Management Office, is soliciting Expressions of Interest from qualified firms to provide professional design services to develop construction documents to build additional aircraft hangar space at the Wheeling Army Aviation Support Facility #2, located in, Wheeling, WV, per the attached documentation.

INVOICE TO		SHIP TO	
DIVISION ENGINEERING & FACILITIES ADJUTANT GENERALS OFFICE 1707 COONSKIN DR		BUILDING TRADE SPECIALIST ARMY AVIATION SUPPORT FACILITY 2 538 GIRTYS POINT RD	
CHARLESTON	WV25311	WHEELING	WV 26003
US		US	

Line	Comm Ln Desc	Qty	Unit Issue
1	EOI- Wheeling AASF#2 Aircraft Hangar Addition		

Comm Code	Manufacturer	Specification	Model #
81101508			

Extended Description :

EOI- Wheeling AASF#2 Aircraft Hangar Addition Design Services per the attached documentation.

ADJ1900000013	Document Phase Final	Document Description EOI- Wheeling AASF#2 Aircraft Hangar Addition	Page 3 of 3
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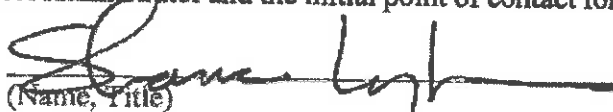
ADDITIONAL TERMS AND CONDITIONS

See attached document(s) for additional Terms and Conditions

ADDITIONAL TERMS AND CONDITIONS
(Architectural and Engineering Contracts Only)

- 1. PLAN AND DRAWING DISTRIBUTION:** All plans and drawings must be completed and available for distribution at least five business days prior to a scheduled pre-bid meeting for the construction or other work related to the plans and drawings.
- 2. PROJECT ADDENDA REQUIREMENTS:** The Architect/Engineer and/or Agency shall be required to abide by the following schedule in issuing construction project addenda. The Architect/Engineer shall prepare any addendum materials for which it is responsible, and a list of all vendors that have obtained drawings and specifications for the project. The Architect/Engineer shall then send a copy of the addendum materials and the list of vendors to the State Agency for which the contract is issued to allow the Agency to make any necessary modifications. The addendum and list shall then be forwarded to the Purchasing Division buyer by the Agency. The Purchasing Division buyer shall send the addendum to all interested vendors and, if necessary, extend the bid opening date. Any addendum should be received by the Purchasing Division at least fourteen (14) days prior to the bid opening date.
- 3. PRE-BID MEETING RESPONSIBILITIES:** The Architect/Engineer shall be available to attend any pre-bid meeting for the construction or other work resulting from the plans, drawings, or specifications prepared by the Architect/Engineer.
- 4. AIA DOCUMENTS:** All construction contracts that will be completed in conjunction with architectural services procured under Chapter 5G of the West Virginia Code will be governed by the attached AIA documents, as amended by the Supplementary Conditions for the State of West Virginia, in addition to the terms and conditions contained herein. The terms and conditions of this document shall prevail over anything contained in the AIA Documents or the Supplementary Conditions.
- 5. GREEN BUILDINGS MINIMUM ENERGY STANDARDS:** In accordance with West Virginia Code § 22-29-4, all new building construction projects of public agencies that have not entered the schematic design phase prior to July 1, 2012, or any building construction project receiving state grant funds and appropriations, including public schools, that have not entered the schematic design phase prior to July 1, 2012, shall be designed and constructed complying with the ICC International Energy Conservation Code, adopted by the State Fire Commission, and the ANSI/ASHRAE/IESNA Standard 90.1-2007: Provided, That if any construction project has a commitment of federal funds to pay for a portion of such project, this provision shall only apply to the extent such standards are consistent with the federal standards.

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.



(Name, Title)
Shane Lyle, AIA, LEED AP BD+C, Vice President

(Printed Name and Title)
801 Corporate Drive, Lexington, KY 40503

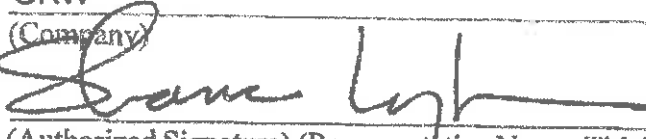
(Address)
(859) 223-3999 / (859) 223-8917

(Phone Number) / (Fax Number)
slyle@grwinc.com

(email address)

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

GRW

(Company)


(Authorized Signature) (Representative Name, Title)

Shane Lyle, AIA, LEED AP BD+C, Vice President

(Printed Name and Title of Authorized Representative)

01/23/2019

(Date)

(859) 223-3999 / (859) 223-8917

(Phone Number) (Fax Number)

STATE OF WEST VIRGINIA
Purchasing Division

PURCHASING AFFIDAVIT

CONSTRUCTION CONTRACTS: Under W. Va. Code § 5-22-1(i), the contracting public entity shall not award a construction contract to any bidder that is known to be in default on any monetary obligation owed to the state or a political subdivision of the state, including, but not limited to, obligations related to payroll taxes, property taxes, sales and use taxes, fire service fees, or other fines or fees.

ALL CONTRACTS: Under W. Va. Code §5A-3-10a, no contract or renewal of any contract may be awarded by the state or any of its political subdivisions to any vendor or prospective vendor when the vendor or prospective vendor or a related party to the vendor or prospective vendor is a debtor and: (1) the debt owed is an amount greater than one thousand dollars in the aggregate; or (2) the debtor is in employer default.

EXCEPTION: The prohibition listed above does not apply where a vendor has contested any tax administered pursuant to chapter eleven of the W. Va. Code, workers' compensation premium, permit fee or environmental fee or assessment and the matter has not become final or where the vendor has entered into a payment plan or agreement and the vendor is not in default of any of the provisions of such plan or agreement.

DEFINITIONS:

"Debt" means any assessment, premium, penalty, fine, tax or other amount of money owed to the state or any of its political subdivisions because of a judgment, fine, permit violation, license assessment, defaulted workers' compensation premium, penalty or other assessment presently delinquent or due and required to be paid to the state or any of its political subdivisions, including any interest or additional penalties accrued thereon.

"Employer default" means having an outstanding balance or liability to the old fund or to the uninsured employers' fund or being in policy default, as defined in W. Va. Code § 23-2c-2, failure to maintain mandatory workers' compensation coverage, or failure to fully meet its obligations as a workers' compensation self-insured employer. An employer is not in employer default if it has entered into a repayment agreement with the Insurance Commissioner and remains in compliance with the obligations under the repayment agreement.

"Related party" means a party, whether an individual, corporation, partnership, association, limited liability company or any other form or business association or other entity whatsoever, related to any vendor by blood, marriage, ownership or contract through which the party has a relationship of ownership or other interest with the vendor so that the party will actually or by effect receive or control a portion of the benefit, profit or other consideration from performance of a vendor contract with the party receiving an amount that meets or exceeds five percent of the total contract amount.

AFFIRMATION: By signing this form, the vendor's authorized signer affirms and acknowledges under penalty of law for false swearing (W. Va. Code §61-5-3) that: (1) for construction contracts, the vendor is not in default on any monetary obligation owed to the state or a political subdivision of the state, and (2) for all other contracts, that neither vendor nor any related party owe a debt as defined above and that neither vendor nor any related party are in employer default as defined above, unless the debt or employer default is permitted under the exception above.

WITNESS THE FOLLOWING SIGNATURE:

Vendor's Name: GRW

Authorized Signature: *[Signature]* Date: 01/23/2019

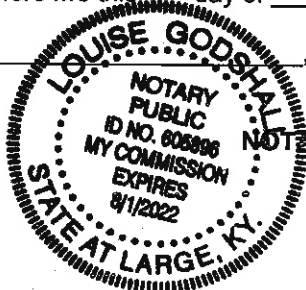
State of Kentucky

County of Fayette, to-wit:

Taken, subscribed, and sworn to before me this 23 day of January, 2019.

My Commission expires August 1, 2020.

AFFIX SEAL HERE



[Signature]
NOTARY PUBLIC



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

State of West Virginia
 Centralized Expression of Interest
 02 – Architect/Engr

Proc Folder: 530551

Doc Description: Addendum #1 EOI- Wheeling AASF#2 Aircraft Hangar Addition

Proc Type: Central Purchase Order

Date Issued	Sollcitation Closes	Solicitation No	Version
2019-01-18	2019-01-25 13:30:00	CEOI 0603 ADJ1900000013	2

BID RECEIVING LOCATION

BID CLERK
 DEPARTMENT OF ADMINISTRATION
 PURCHASING DIVISION
 2019 WASHINGTON ST E
 CHARLESTON WV 25305
 US

VENDOR

Vendor Name, Address and Telephone Number:

GRW
 801 Corporate Drive
 Lexington, KY 40503
 (859) 223-3999

FOR INFORMATION CONTACT THE BUYER

Stephanie L Gale
 (304) 558-8801
 stephanie.l.gale@wv.gov

Signature X  FEIN # 61-0665036

DATE 1/23/2019

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

ADDITIONAL INFORMATION:

Addendum # issued to:

1. provide responses to technical questions.

End of Addendum #1

INVOICE TO		SHIP TO	
DIVISION ENGINEERING & FACILITIES ADJUTANT GENERALS OFFICE 1707 COONSKIN DR		BUILDING TRADE SPECIALIST ARMY AVIATION SUPPORT FACILITY 2 538 GIRTYS POINT RD	
CHARLESTON	WV25311	WHEELING	WV 26003
US		US	

Line	Comm Ln Desc	Qty	Unit Issue
1	EOI- Wheeling AASF#2 Aircraft Hangar Addition		

Comm Code	Manufacturer	Specification	Model #
81101508			

Extended Description :

EOI- Wheeling AASF#2 Aircraft Hangar Addition Design Services per the attached documentation.

ADJ1900000013	Document Phase Final	Document Description Addendum #1 EOI- Wheeling AASF#2 Aircraft Hangar Addition	Page 3 of 3
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ADDITIONAL TERMS AND CONDITIONS

See attached document(s) for additional Terms and Conditions

ADDENDUM ACKNOWLEDGEMENT FORM
SOLICITATION NO.:

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.

GRW

Company



Authorized Signature

01/23/2019

Date

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

Revised 6/8/2012