GRW | engineering | architecture | geospatial
200 Sixth Avenue | St. Albans, WV 25177
304.727.5501 | www.grwinc.com

August 29, 2017

Ms. Crystal Rink, Senior Buyer
Purchasing Division
West Virginia Department of Administration
2019 Washington Street, East
Charleston, WV 25305-0130

RE: Architecture & Engineering Services for Camp Dawson Buildings 202 Conversion

Dear Ms. Rink and Selection Committee Members:

Achieving the goals established for the design and construction of Building 202 at Camp Dawson 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. GRW is a full-service A/E design consulting firm that has been working with clients like you on similar projects throughout the region and locations nationwide for more than 50 years. Our military and National Guard experience ranges from the **completion of projects at Camp Dawson** to similar facilities at other National Guard and military campuses in the region. (See Section 2.0)

Familiarity. In addition to our work for **West Virginia Army National Guard**, we have completed in recent years numerous projects for the **West Virginia Air National Guard.** Our firm has also designed projects for **West Virginia Division of Corrections, Department of Parks, and Division of Highways**, as well as **Marshall University**. Our team's local knowledge and capacity is strengthened by GRW's acquisition of Chapman Technical Group, a West Virginia-based firm.

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,

Joe Bird, RLA, ASLA
GRW / Chapman Technical Group Vice President

engineering | architecture | geospatial

Expression of Interest

Camp Dawson Building 202 Conversion Architecture & Engineering Services

CEOI ADJ1800000003

WV Department of Administration WV Army National Guard

Table of Contents

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 IDIQs and task orders in 18 districts.

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.

2.0 Relevant Past Projects

Your Camp Dawson Building 202 Conversion Project is similar in nature to many of other facilities completed by GRW, at Camp Dawson, as well as other National Guard and military campuses in the region.

The projects we've selected help demonstrate our firm's experience with design and/or improvements similar to those you plan to incorporate into your project. They also help demonstrate our familiarity with Camp Dawson, West Virginia, the National Guard, and other similar clients. Details about these projects are provided on the following pages.

Specific Experience with Relevant Features

- Building repurposing/renovation
- Classroom buildings
- Electrical, HVAC, plumbing, and telecommunications systems modification
- Door and window replacement
- Controlled entry systems
- Sound management
- Raised floor systems
- Moveable partitions

Organization

We've grouped our projects as follows:

A. Projects at Camp Dawson

B. Projects with Similar Features

C. Additional West Virginia National Guard Projects

A. Projects at Camp Dawson

Camp Dawson Live Fire Exercise Shoot House Complex

West Virginia Army National Guard | Charleston, 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

Camp Dawson Training Ranges at Briery Mountain

West Virginia Army National Guard | Charleston, 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 Volkstone Training Area Utility Upgrade

West Virginia Army National Guard | Charleston, WV

GRW provided design services for the expansion of sewer, water and electric 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.

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 | Charleston, 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

B. Projects With Similar Features

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 ATFP 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

130th Airlift Wing Security Forces Squadron Facility Renovation and Expansion (#3910-09)

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.

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

UK College of Nursing Computer Classroom

University of Kentucky | Lexington, KY

The University of Kentucky selected GRW to provide architectural and engineering services for the Phase II **renovation of approximately 8,117 SF** on the sixth-floor of the University's Nursing Building. The main objective of the approximately $650,000 fit-up was to accommodate the construction of a **new 144-seat computer classroom**. The computer classroom, which is used for computerized exams and lectures, includes several support functions: proctor/check-in room for access control and surveillance, a student belongings room with lockers, a processor room for the computer processors and CCTV surveillance equipment, as well as a **controlled entry system**. The project also includes an IT office and a reading room with seating for 42.

Existing HVAC, plumbing, and fire protection systems were all reconfigured to accommodate the renovated areas. The project further involved the evaluation and design for upgrading the supply fan within the 35,000 cfm built-up air-handling system within the roof penthouse that serves the entire building. Preliminary testing, adjusting and balancing was performed and designs were prepared for evaluating the options of replacing the fan in-kind, modifying the unit for fan-wall technology, and repairing and upgrading the existing fan. Ultimately, the existing fan was repaired and upgraded to meet safety and performance requirements.

The design consisted of preparation of a combined schematic and design development phase and construction documents in accordance with University and Medical Center standards and procedures. The project was constructed in two phases to maintain corridor access during the semester. Phase Two, the majority of the corridor system, was constructed during spring break.

Client Contact: Sandy Redmon, Project Manager, University of Kentucky, (859) 218-3115, sredmon@email.uky.edu

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.

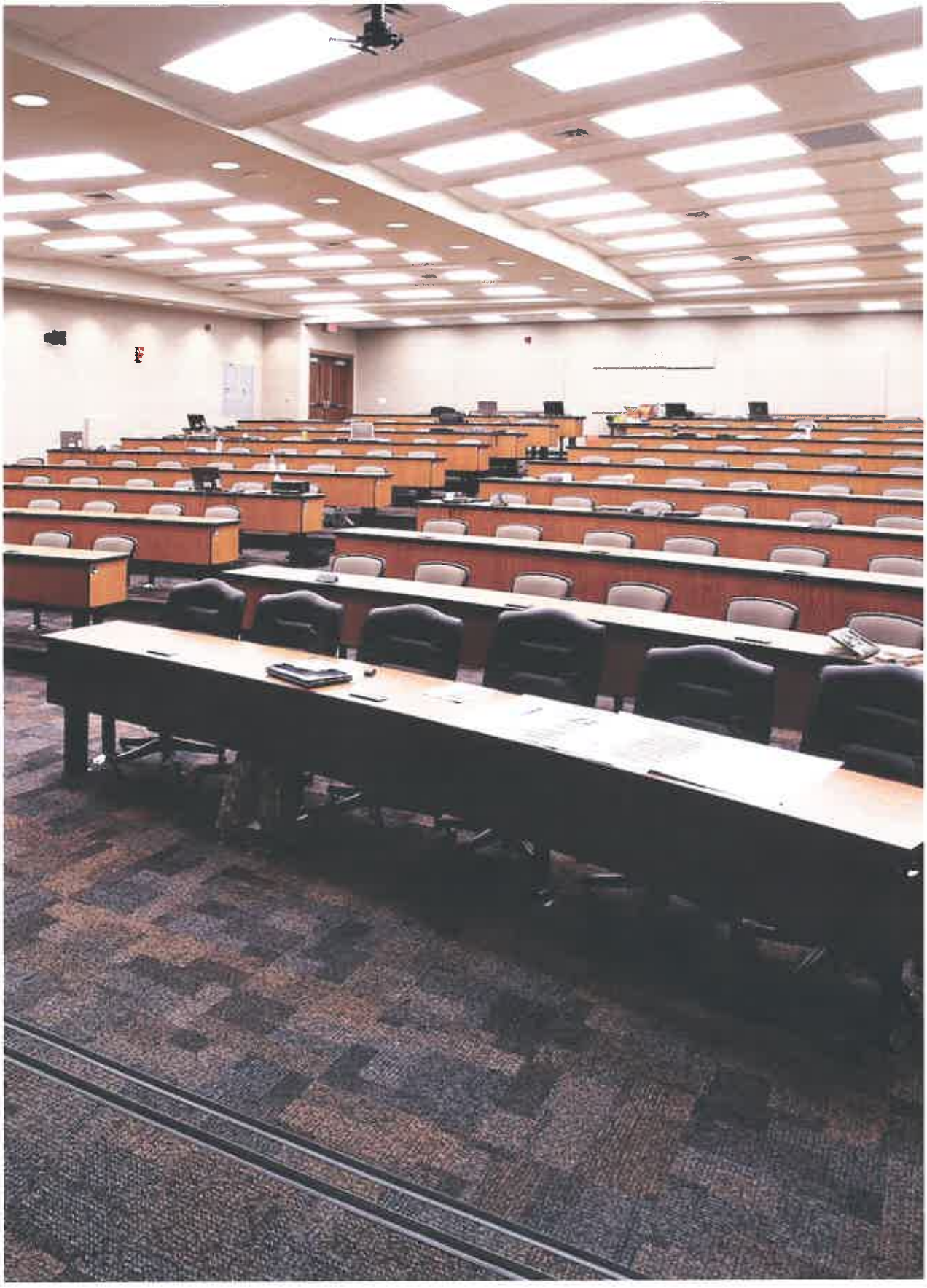
The administrative/training complex includes the following functional spaces and features:

- 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.

"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

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



76th Brigade Combat Team Readiness Center

Indiana Army National Guard | Indianapolis, IN

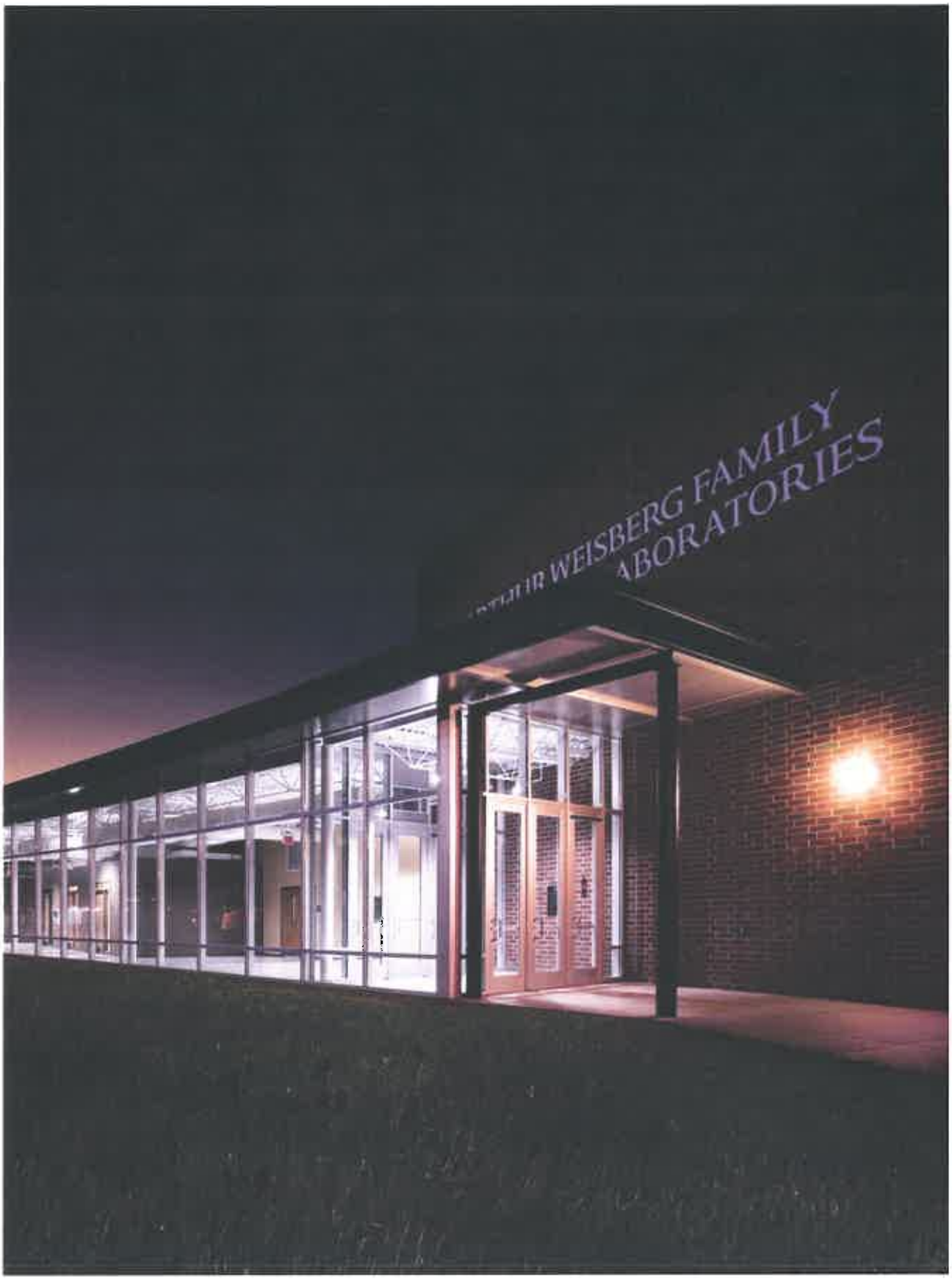
GRW provided A/E design and construction administration services for a new 109,555 SF two-story Army National Guard Readiness Center in Lawrence, a suburb of Indianapolis, IN. This facility is located on a site that was formerly part of Fort Benjamin Harrison. An 8,300 SF unheated storage facility is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

"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

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


WEISBERG FAMILY
ABORATORIES

Weisberg Family Engineering Laboratory and Classroom Building

Marshall University | Huntington, WV

GRW was hired by Marshall University to masterplan and design the first phase for a new engineering complex on their main campus in Huntington, WV. This 16,000 SF teaching facility includes;

- Laboratories
- **Classrooms**
- Public space for students
- Faculty offices
- **Building-wide access control system**

The curved façade of the building was designed to create a park-like plaza along the north edge of 3rd Avenue, giving a softened edge to what previously had been parking lots and pavement. Brick and other exterior building materials were selected to complement the adjacent campus buildings, thus giving a more unified appearance to the campus.

Client Contact: Betsy Dulin, JD, MS, Former Dean, Marshall University College of Eng., (304) 561-7508, betsydulin@38thed.com

Southeast Kentucky Community and Technical College, Harlan Campus Building One Renovation

Commonwealth of Kentucky Division of Engineering & Contract Administration | Frankfort, KY

The $3.1 million renovation of this building located in Harlan, KY included updated exterior appearance, and modernized teaching spaces. Work included roof replacement, **window replacement**, complete interior reconstruction, interior excavation for new auditorium, and total **replacement of building mechanical and electrical systems**.

The 31,000 SF building includes:

- **Computer lab**
- **Distance learning / ITV classroom (raised floor with power and communications provisions)**
- **Classrooms**
- 200-seat auditorium/theater
- Welding, machine, and carpentry shops
- Conference room
- Science laboratory
- Library
- GED
- Offices

The auditorium design included provisions for power and control of future dimming and sound system equipment to be provided by the Owner. The auditorium HVAC system was designed for minimal ambient noise. The ITV room included a **raised floor with power and communications provisions** for Owner-furnished teleconferencing equipment. The science laboratory included a fume hood, as well as gas, air, and water at each student and teacher station, and acid dilution pit.

The building is now 100% sprinkled, with new fire alarm system and new 480/277V, 3,000A electrical service. Modifications were made to existing central plant mechanical systems to accommodate additional heating and cooling loads.

The project was completed **1 month ahead of schedule**, and the low bid was **3% below the Architect's estimate**. Because this project was so successful, the Owner made a videotape of the facility to train staff on the level of quality and finish that can be attained for their normal per unit budget amounts.

Client Contact: Kentucky Community and Technical College System, 300 North Main Street, Versailles, KY 40383, (859) 256-3100

E.W. Brown Generating Station DCS Control Room

LG&E and KU Services Company | Louisville, KY

GRW provided A/E services for the fast-track design of a new DCS control room located on the mezzanine floor of the E.W. Brown Generating Station in Harrodsburg, KY. The DCS control room is approximately 35' x 25' (875 square feet). The space contains a **raised access panel floor system** with stair access from three directions. A new HVAC system was provided to adequately condition the area. Electrical equipment such as lighting, wiring devices, conduit/conductors, etc. were specified within the construction document drawings, but furnished and installed by Kentucky Utilities outside of the construction contract.

Client Contact: Greg Wilson, LG&E and KU Services Company, (859) 748-4529, Greg.Wilson@lge-ku.com

C. Additional West Virginia National Guard Projects

167th Airlift Wing C-17 Hangar 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, and 80,751 SF Maintenance Hangar 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.

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.

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

130th Airlift Wing Communications Duct

West Virginia Air National Guard | Charleston, WV

This project is scheduled as a FY11 Sustainment, Restoration and Modernization (SRM) project for the 130th AW, with a project budget of $610,000. In July 2010, the 130th AW selected GRW to provide design and construction administration services for this project. A Concept Development Report was initially prepared as the first step in the design phase for this project and it represents the collaborative efforts to date by the 130th Design Working Group (DWG) and GRW to select a preferred concept for a new duct system for routing the base's communications network to a new Communications Facility.

With the construction of a new aircraft hangar and the planned future construction of a new communications building, the fiber optic cable for the base network will consist of two ITNs (Information Transfer Nodes). ITN-1 will be located in the new Communications Facility and ITN-2 will be located in the new hangar, Building 407. All fiber optic cables from the mid- and lower-level base buildings will be routed to the new Communications Facility, which is to be built at the lower level, and all fiber optic cables from the upper area buildings will be routed to Building 407. The duct bank will carry fiber optic lines, television and coaxial cabling. The extended duct system will allow the current system to be looped and allow redundancy of assets.

A 4-duct and a 12-duct PVC conduit system with inter-duct, appropriately sized pre-cast manholes with reinforced foundation, is proposed. Sumps for drainage of infiltration will be installed in the manholes. The manhole lids will be lockable for security of the ducts. Once the ducts are constructed, the fiber optic cables will be installed by the Communications Squadron.

After the Concept Development Report was completed, the base decided to transfer further design work to the Communications Squadron for execution of this project under the design-build project delivery approach.

130th Airlift Wing Communications Facility

West Virginia Air National Guard | Charleston, WV

GRW provided Type A and Type B design services for a new $3.6 million Communications Facility at Yeager Airport in Charleston, WV. This 13,100 SF (1,217 SM) **LEED Silver** facility was designed to provide a centrally located common user communications system for both intra-base and off-base communications. Various types of cable from the base transmitter and receiver as well as other base communications systems will be normally fed through this structure. Ground control of all ground point-to-point contact and air to ground point-to-point contact (such as radio, telephone, DISNET, etc.) may be exercised from this facility.

A few relevant spaces and features include:

- Administrative Functions. Includes office space for communications officer and assistants, intra-base radio management, the base message distribution center, crypto storage vault, crypto accounting, commercial communications offices, storage space.
- Maintenance Functions. Includes space for the chiefs of maintenance and systems (COM/COS), training of system/support flight personnel, training of maintenance and operations personnel and programming personnel.

The design of this facility also included AT/FP measures, fire detection and alarm, ADA compliance, landscaping, utilities (water, sewer, gas, electric, etc), special hazardous materials storage spaces, parking areas and exterior signage and lighting.

The design was stopped at 65% complete at the convenience of the government due to the need to update the base's master plan and re-prioritize new capital improvements.

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

Readiness Center Commissioning Projects

U.S. Property & Fiscal Office for West Virginia | Buckhannon, WV

GRW has been contracted by the West Virginia Army National Guard to provide LEED Fundamental Commissioning for four building construction projects: 1) the Buckhannon, WV AFRC - Phase I, 38,000 SF and $13,150,000 construction cost, 2) the Morgantown, WV Readiness Center, 58,520 SF and $20,500,888 construction cost, 3) the Moorefield, WV Readiness Center, 57,256 SF and $17,725,351 construction cost, and 4) the Logan, WV Readiness Center, 58,520 SF and $14,296,326 estimated construction cost.

The scope of services includes 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. GRW has also proposed additional architectural and engineering construction oversight services on an as-needed basis.

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

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, was also provided by GRW.

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 Composite Material Shop

West Virginia Air National Guard | Martinsburg, WV

The West Virginia Air National Guard selected GRW to design modifications to the 167 Air Wing's 2,744 SF Composite Material Shop to support its mission change from C-5 to C-17 aircraft.

The existing facility is 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

130th Airlift Wing Master Plan Update and CIP

West Virginia Air National Guard | Charleston, WV

GRW prepared a Web-Enabled Master Plan Update for the 130th Airlift Wing in Charleston. A GeoBase Common Installation Picture (CIP) was also provided. The Master Plan evaluated benefits and impacts associated with acquiring airfield property and helped determine the best use of additional property for aircraft parking, operations, and maintenance facilities.

"It's been a real pleasure working with you... What a difference it makes working with someone who knows how our side of the deal works vs. someone who doesn't. Thanks."

-- MSgt. Tina Kubic, 130th AW/MSC

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

130th Airlift Wing Aboveground Fuel Storage Dispensing Facility

West Virginia Air National Guard | Charleston, WV

GRW provided multi-discipline A/E design services for a new $227,500 aboveground fuel station for the installation's government-owned vehicles. Two new aboveground tanks (1 diesel, 1 unleaded gasoline) and a new dispensing system replaced an older fuel station that included underground fuel storage tanks.

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

Joint Armed Forces Reserve Center and Area Maintenance Support Activity

West Virginia Army National Guard | Charleston, WV

GRW participated in the Program Planning Document Charrette (PPDC) for WVARNG's Armed Forces Readiness Center (AFRC) in Ripley, WV. A three-day Planning Charrette was conducted in order to understand the needs of the end users of the AFRC. The AFRC will replace two local armories and a USAR center. The Eastern Star property in Jackson County, WV was selected as the preferred site for the AFRC. The site for the AFRC will be on the western portion of the property.

The Charrette Team evaluated site constructability issues. In addition, the Team assessed utilities, traffic issues, outdoor lighting, parking, AT/FP issues, and space planning. The end work product outlined two alternative overall site layouts and floor plans. A parametric cost estimate was prepared and a revised DD Form 1390/1391 was developed for a 60,927 SF AFRC and a 4,500 SF unheated storage facility.

Spaces and features in the preliminary plans for the complex include:

- Administrative areas: Private office suites, administrative common spaces, recruiting offices, family support offices
- Assembly hall with a full kitchen and chair and table storage, break room and vending area
- Physical fitness area
- Unit storage co-located within the AFRC will house caging, arms vault, and private offices.
- Unheated storage 6,000 SF will provide additional caged storage areas for the unit's users.

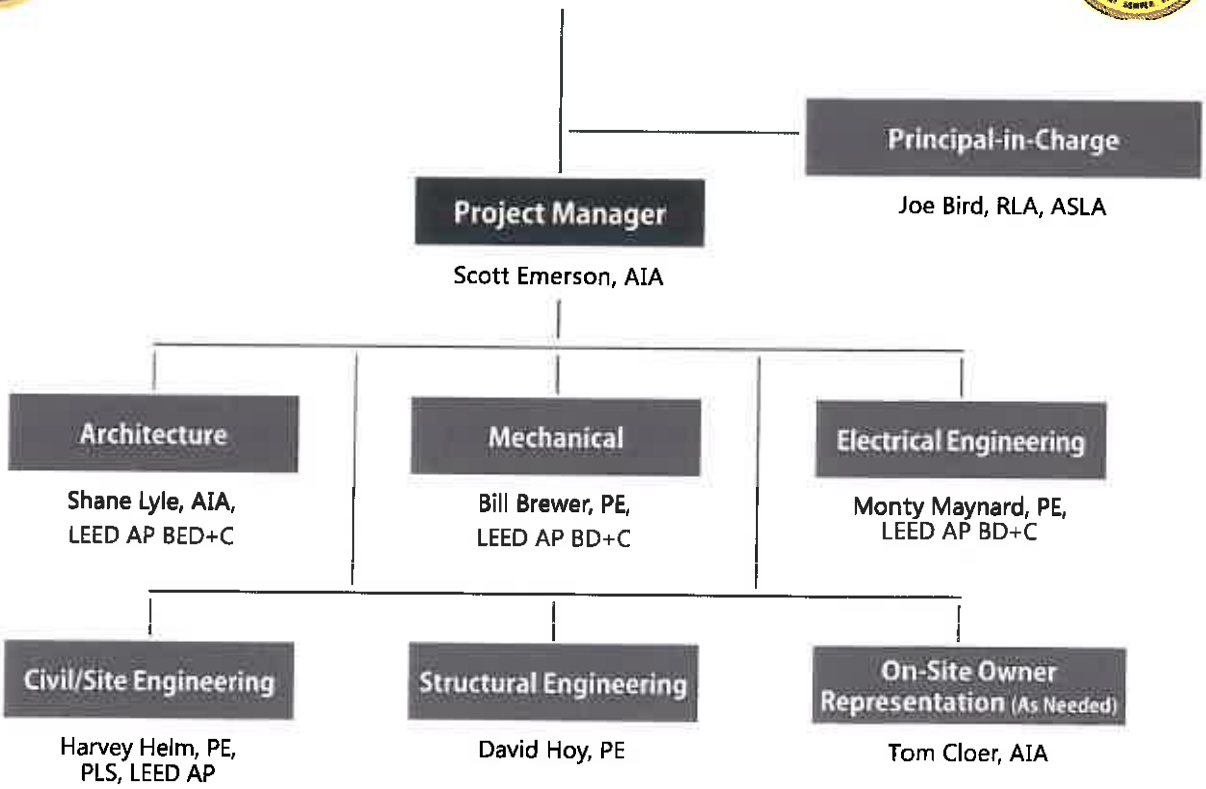
A separate Area Maintenance Support Activity (AMSA) 4,500 SF provides vehicle bays, flammable storage, controlled waste storage; battery room, parts storage room, tool rooms, supply rooms, and offices and supporting facilities

3.0 Staff Qualifications

When you work with a GRW team, you have access to some of the most reputable consultants in the industry, many with experience at Camp Dawson. From the design of personnel support facilities to security forces operations and training centers, 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



Joe Bird, PLA, ASLA | GRW Principal-in-Charge

YEARS OF EXPERIENCE:
With GRW: 32
Total: 39

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

REGISTRATION
Professional Landscape Architect: WV, KY

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.

RELEVANT PROJECT EXPERIENCE

Lewis County Courthouse Conditions Report and Roof Area Restoration, Weston, WV – Principal. Preparation of report to identify and evaluate existing conditions, prioritize recommendations for restorations of building envelope and structure, and provide construction cost estimates. Design phase included restoration of steel domes and roofing, and structural improvements to bell tower members.

Tucker County Courthouse and Jailer's Residence Restoration, Parsons, WV – Principal. Report included conditions assessment, recommendations for stabilization and restoration, and prioritized budget. First design phase included refurbishment, repointing, and stabilization of chimneys.

Upshur County Courthouse Renovations, Buckhannon, WV – Principal. Award-winning design and construction of several improvement and restoration projects including accessibility modifications (lift installed and plaza renovated to make original courthouse accessible), dome and clock tower completely restored, portico stonework was restored.

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.

Frankfort Plant Board Administration Building, Frankfort, KY – Landscape Architect. New three-level, 46,000 SF administration building on 30-acre site.

Canaan Valley Resort State Park Improvements, Canaan Valley, WV – Project Manager. 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.

Marshall University Women's Softball Field, Huntington, WV – Project Manager. Design of NCAA regulation softball field featuring subsurface drainage and professional infield soil mix for quick-drying playing surface. Also included above-ground dugouts, storage building, press box, and electronic scoreboard.

Meadow River Rail Trail, Fayette & Greenbrier Counties, WV – Project Manager. Pedestrian/bicycle trail over 16.7 miles of rail bed, including construction of decks on four railroad trestles, and design of trailheads at strategic locations.

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.

Covington 6th Street and Scott Boulevard Improvements, Covington, KY – Landscape Architect. Planning and design services for reconstruction of approximately one mile of city streets, encompassing primarily West Sixth Street and Scott Boulevard. LPA project included placing electric and communications utilities underground, sidewalk replacement, and overall streetscape beautification including curb bump outs and rain gardens.

West Virginia State Parks Picnic Shelters – 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.

Lewisburg L&R Trail, Phase I, Lewisburg, WV – Landscape Architect. Phase I of multi-use trail at historic L&R Railroad no longer in service. First phase starts in downtown Lewisburg and winds through residential neighborhoods before ending at highway. Future phases will continue trail toward Ronceverte.

Ripley Main Street Kayak Access Ramp, Ripley, WV – Project Manager.

Scottsville West Main Streetscape, Scottsville, KY – Landscape Architect. Design and construction administration services for streetscape improvements along north side of two blocks west of Heart of Scottsville's downtown square.

Shepherdstown Pedestrian and Bicycle Trail, Shepherdstown, WV – Project Manager. New, 4,000-foot pedestrian/bicycle trail parallel to WV 45. Required close coordination with local and state historic groups to maintain sensitive cultural heritage resources.

St. Albans High School Girl's Softball Field, Charleston, WV – Project Manager. Design of girls' softball field located between St. Albans High School athletic track and Belvil Athletic Annex. Required demolition and renovation of portions of Belvil Athletic Annex to provide sufficient outfield. Schematic drawings were provided for dugouts and concessions stand area with press box and restrooms.

Scott Emerson, RA | GRW Project Manager

YEARS OF EXPERIENCE:
With GRW: 13
Total: 33

EDUCATION
Bachelor of Architecture, 1976, Virginia Polytechnic Institute and State University

REGISTRATION
Registered Architect: KY

Construction Documents Technologist (CDT)

Scott has extensive architectural experience, and has designed military, industrial, commercial and institutional projects for state, federal and private clients. His experience includes space planning, code review, schematic and design development, bid/contract preparation and construction administration. Scott has also been cross trained as a construction project manager responsible for complete project delivery including bid evaluation/award through punch list and project turn-over.

RELEVANT PROJECT EXPERIENCE

West Virginia ARNG Camp Dawson Ranges, Kingwood, WV – Project Manager. 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 ARNG Camp Dawson Volkstone Training Area Utility Upgrade, Kingwood, WV – Project Manager. 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.

Starship Barracks, Ft. Benning, GA - Project Manager. Design-build project to renovate and make additions to two Starship barracks complexes. Included **conversion of building's dining facilities to classrooms**, and expansion of battalion headquarters to provide additional administrative areas. Renovation (300,000 SF) included new roof, exterior walls, windows and upgrades to interior including plumbing, electrical, HVAC, fire protection and building information systems. Designed and built to achieve LEED Silver certification.

Michigan ARNG Joint Forces HQ Complex Planning/Programming Charrette, Lansing, MI – Project Manager. Evaluation of size, condition, and capacity of facilities (42-acre site with four buildings comprising 300,000 SF) acquired from State of Michigan proposed for occupancy by MI ARNG. Included on-site 3-day charrette to determine space requirements and special needs of users. Developed cost estimates associated with renovation of facilities, and reviewed DD Forms1390/91and related documentation.

Indiana ANG 122nd Fighter Wing Security Forces Operations and Training Facility, Fort Wayne, IN – Architect. 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.

Illinois ANG 126th Air Refueling Wing Aerospace Ground Equipment Shops/Storage and General Purpose Maintenance Shops, Scott AFB, IL – Project Manager. Design for 5,241 SF of aerospace ground equipment (AGE) shops and storage and 46,202 SF of general purpose maintenance shops for a major relocation of Illinois Air National Guard air refueling wing operations and KC-135E aircraft from O'Hare International Airport to Scott Air Force Base.

Blue Grass Army Depot Satellite Fire Station, Richmond, KY – Project Manager. Design-build renovation of a warehouse into a satellite fire station to provide rapid response to under-served areas at campus.

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).

Fort Knox Macdonald Elementary School Renovation, Ft. Knox, KY – Project Manager. Renovation of 63,000 SF Army school with year-round schedule. Involved a new standing seam roof installed over 48,000 SF to create an attic for 100% replacement of existing HVAC system equipment with geothermal-based heat pump system, new electrical service system, and fire alarm system upgrade.

Fort Campbell Elementary and High School Building Renovations, Ft. Campbell, KY – Project Manager. Elementary school addition (office, restrooms and gym equipment storage room, including HVAC, electrical for lighting, power, fire alarm and communciations), restroom renovations at second elementary school, replacement of 112' movable partition at high school, and replacement of panic hardware/locking system to provide consistent, easy way to maintain locking system for all 7 schools.

Wendell H. Ford Regional Training Center Master Plan Update, Greenville, KY – Project Manager. Master plan update for the entire facility covering training center located on 8,500 acres and including barracks and quarters for nearly 500 troops, live-fire ranges, maintenance facilities for military equipment, and 4,200-foot grass runway. Work for master plan update includes expansion analysis of utilities and buildable sites for areas such as the cantonment, range facilities areas and training barracks facilities.

Tennessee ANG Memphis Master Plan Update, Memphis, TN – Architect.

Tennessee ANG Nashville Master Plan Update, Nashville, TN – Architect.

Nevada Air National Guard Relocation, Phase I & II, Reno, NV – Design Team Coordinator.

Readiness Training Center, Georgia Air National Guard - Project Manager. Approximately $15M design/build project designed to meet LEED Silver criteria.

Warehouse/SCIF Conversion, Ohio Air National Guard - Project Manager. Conversion of warehouse area to Sensitive Compartmented Information Facility (SCIF).

Army Reserve Center, Lewisville, TX - Project Design Manager. Design/build project designed to meet LEED Silver criteria.

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

YEARS OF EXPERIENCE:
With GRW: 28
Total: 34

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

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 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. 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 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 ATFP 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 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-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.

Tom Cloer, AIA | GRW Architect / Resident Inspection

YEARS OF EXPERIENCE:
With GRW: 11
Total: 16

EDUCATION
Bachelor of Architecture, 2001, University of Tennessee

REGISTRATION
Registered Architect: WV, VA

National Council of Architectural Boards of Certification

PROFESSIONAL AFFILIATIONS AND TRAINING
WV Chapter, American Institute of Architects

St. Albans Property and Maintenance Board

St. Albans Historic District Committee Member

Tommy has extensive architectural experience, having worked with clients on programming/planning, budget analysis, design, construction documents, meeting coordination, bidding/negotiation services, construction phase services, and code compliance. He regularly provides leadership in architectural design and project management for new building design and renovation projects such as K-12, parks and recreation, and government and municipal facilities.

RELEVANT PROJECT EXPERIENCE

Jane Lew Elementary School Addition and Renovation, Jane Lew, WV - Project Architect. Design of addition and renovation project that included five new classrooms, updated office suite, and new building entrance and bus loop. Toilet rooms were also renovated and new floor finishes were installed throughout building. New HVAC system serves the addition, and new sprinkler and fire alarm systems were installed for entire school. New ceilings and lighting were also provided throughout.

Smithville Elementary School Addition and Renovation, Smithville, WV - Project Architect. Included demolition of two buildings in existing complex and design of new classroom wing and new kitchen addition adjacent to remaining buildings. New additions were designed to join with existing classroom wing and multipurpose building to create single facility under one roof.

M K-8 Addition, Man, WV - Project Architect. Included design and space planning for 9,360 SF addition to existing school. Addition included four new classrooms, 2,400 SF gymnasium/multipurpose room, ADA compliant restroom facilities, and small landscaped courtyard. Design and construction was accomplished in 10 months and nearly 15% below budget.

Lewis County High School Man Trap, Weston, WV - Project Architect. Design of new secure entrance (man trap).

Canaan Valley Resort State Park Tube Park Lodge, Canaan Valley, WV - Project Architect. New Tube Park Lodge and other existing facilities upgrades as part of wide range of improvements to ski area. New tubing lodge features wood burning fire place, restrooms, concession stand for hot drinks, and outdoor patio with wood-burning fire pit.

Blackwater Falls State Park Cabins, Davis, WV - Project Architect. Thirteen new cabins in the environmentally-sensitive park with goal to have as little environmental site impact as possible. Each cabin has four bedrooms and central living, dining, kitchen area. Wood floors and trim as well as large stone fireplace give modern cabins more rustic feel.

Burnsville Rest Areas, I-79, Mile Marker 86, West Virginia Department of Transportation - Architect.

Roark Sullivan Veterans' Transitional Living Center and Service Center, Charleston, WV - Architect.

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

YEARS OF EXPERIENCE:
With GRW: 18
Total: 46

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 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.

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.

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 174 Complex Boiler Renovations, Crane NSWC, IN – Project Manager. 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 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 ATFP standoffs from new building.

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

YEARS OF EXPERIENCE:
With GRW: 21
Total: 40

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 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 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 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.

Indiana ARNG Combined Arms Collective Training Facility Project, Planning Design Charrette, Muscatatuck, IN – Electrical Engineer. Design and engineering consulting to conduct a multi-agency collaborative Project Planning Document Charrette (PPDC), for development of a Combined Arms Collective Training Facility (Muscatatuck CACTF) and to validate a $16.1 million project award estimate. Confirmed project development cost and facilities needs and recommended major renovation / conversion of 23 of 70 existing buildings and new construction.

David Hoy, PE | GRW Structural Engineer

YEARS OF EXPERIENCE:
With GRW: 10
Total: 10

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: 43
Total: 43

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

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 milllion, 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 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.

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 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.

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.

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 Camp Dawson and/or 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.

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 performing these tasks, it should be noted that GRW is not responsible for construction means, methods or procedures or for safety precautions and programs incidental to construction methods as these are the contractor's responsibility.

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 on the site.

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.

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

Scott Emerson, our Project Manager, has primary responsibility for the daily management and coordination of the project team. With over 30 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: Public 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 public funds. 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 Daniel Clevenger
(304) 561-6446, daniel.w.clevenger.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
Herbbie Bannister, General Manager
(502) 352-4377
hbannister@fewpb.com

(New Administration Building Shown Below)

Purchasing Divison
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: 365721

Doc Description: CAMP DAWSON BLDG 202 CONVERSION EOI DESIGN

Proc Type: Central Purchase Order

Date Issued	Solicitation Closes	Solicitation No	Version
2017-08-15	2017-09-05 13:30:00	CEOI 0603 ADJ1800000003	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
200 Sixth Avenue
St. Albans, WV 25177
Joe Bird, RLA, ASLA
(304) 727-5501

FOR INFORMATION CONTACT THE BUYER

Crystal Rink
(304) 558-2402
crystal.g.rink@wv.gov

Signature X [signature] FEIN # 61-0665036 DATE 08/29/2017

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

ADDITIONAL INFORMATION:
EXPRESSION OF INTEREST

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 ARCHITECTURAL AND ENGINEERING DESIGN SERVICES FOR CAMP DAWSON BUILDING 202 CONVERSION PROJECT PER THE ATTACHED DOCUMENTATION

***ONLINE RESPONSES WILL NOT BE ACCEPTED FOR THIS SOLICITATION ***

INVOICE TO		SHIP TO	
STATE FINANCE		FACILITY MAINTENANCE MANAGER	
ADJUTANT GENERALS OFFICE		CAMP DAWSON ARMY TRAINING SITE	
1703 COONSKIN DR		240 ARMY RD	
CHARLESTON	WV25311-1085	KINGWOOD	WV 26537-1077
US		US	

Line	Comm Ln Desc	Qty	Unit Issue
1	Camp Dawson Building 202 Conversion		

Comm Code	Manufacturer	Specification	Model #
81101508			

Extended Description :

The Owner is seeking the services of a qualified professional architectural/engineering firm to provide for the conversion of Building 202 located at Camp Dawson near Kingwood, WV

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 AIA A101-2007 and A201-2007 or the A107-2007 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.

4A. PROHIBITION AGAINST GENERAL CONDITIONS: Notwithstanding anything contained in the AIA Documents or the Supplementary Conditions, the State of West Virginia will not pay for general conditions, or winter conditions, or any other condition representing a delay in the contract. The Vendor is expected to mitigate delay costs to the greatest extent possible and any costs associated with Delays must be specifically and concretely identified. The state will not consider an average daily rate multiplied by the number of days extended to be an acceptable charge.

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 July1, 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)
Joe Bird, RLA, ASLA, Vice President
(Printed Name and Title)
200 Sixth Avenue, St. Albans, WV 25177
(Address)
(304) 727-5501 / (304) 727-5580
(Phone Number) / (Fax Number)
jbird@chaptech.com / info@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)
Joe Bird, RLA, ASLA, Vice President
(Printed Name and Title of Authorized Representative)

08/29/2017
(Date)

(304) 727-5501 / (304) 727-5580
(Phone Number) (Fax Number)

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: Not Applicable / No Addenda Issued
(Check the box next to each addendum received)

- ☐ Addendum No. 1
- ☐ Addendum No. 2
- ☐ Addendum No. 3
- ☐ Addendum No. 4
- ☐ Addendum No. 5
- ☐ Addendum No. 6
- ☐ Addendum No. 7
- ☐ Addendum No. 8
- ☐ Addendum No. 9
- ☐ 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.

_____
Company

_____
Authorized Signature

_____
Date

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

RFQ No. CEOI 0603 ADJ1800000003

STATE OF WEST VIRGINIA
Purchasing Division

PURCHASING AFFIDAVIT

MANDATE: 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 exceed 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 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: _____ Date: 8/29/2017

State of Kentucky

County of Shelby, to-wit:

Taken, subscribed, and sworn to before me this 29 day of August, 2017

My Commission expires 7-6, 2018

AFFIX SEAL HERE

NOTARY PUBLIC _____

Purchasing Affidavit (Revised 07/01/2012)