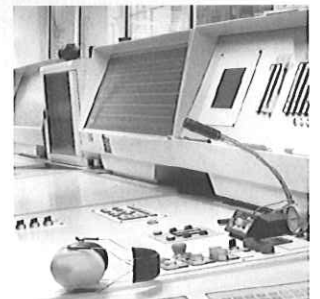
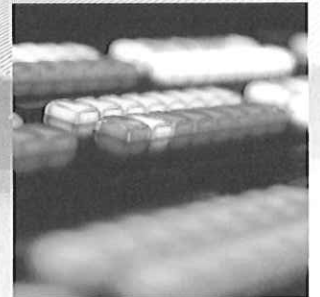


Expression of Interest
State Emergency Crisis Operations Center
West Virginia National Guard
Charleston, WV
July 21, 2011



RECEIVED

2011 JUL 19 AM 10:31

WEST VIRGINIA
DIVISION



Engineers • Architects • Planners
801 Corporate Drive • Lexington, KY 40503
859-223-3999 • www.grwinc.com

Req #: DEFK11031
State of West Virginia
Department of Administration
Purchasing Division



Engineers · Architects · Planners

801 Corporate Drive
Lexington, KY 40503
Tel 859 / 223-3999
Fax 859 / 223-8917

Engineering
Architecture
Planning

July 18, 2011

State of West Virginia
Department of Administration
Purchasing Division
Building 15
2019 Washington Street, East
Charleston, WV 25305-0130

RE: RFQ# DEFK11031, Expression of Interest (EOI)
State Emergency Crisis Operations Center, Charleston, WV

Dear Members of the Selection Committee:

We thank you for the opportunity to submit our qualifications for this project. Our project team is led by GRW, a national A/E firm with extensive military design experience. For your project, GRW is collaborating with Williamson-Shriver, a Charleston-based architectural firm with a strong history of project delivery throughout West Virginia. This collaboration offers several unique advantages for the design of your new Crisis Operations Center:

- **National Guard Experience:** GRW will provide overall project management and project design leadership for the team. GRW currently holds a statewide IDIQ Contract for A/E services with the WV Army and Air National Guard. Our 35 years of experience working with the National Guard gives us the knowledge and expertise to guide this project to a successful conclusion. A few of these projects include:
 - West Virginia ANG 130th Airlift Wing Communications Facility, Charleston, WV - 13,100 SF; LEED Silver Design Criteria
 - West Virginia ANG 130th Airlift Wing – Consolidation/Feasibility Study for Building 107, Charleston, WV – 56,600 SF
 - Indiana ANG 122nd Fighter Wing Security Forces Operations and Training Facility, Ft. Wayne, IN - 18,494 SF
 - Texas ANG 136th Airlift Wing Security Forces Squadron Facility, NAS JRB Fort Worth, TX - 17,400 SF; LEED Silver Design Criteria
 - Ohio ARNG Joint Armed Forces Reserve Center and Field Maintenance Shop Complex, Springfield, OH – 85,865 SF; LEED Silver Design Criteria
 - Kentucky ARNG Joint Armed Forces Reserve Center and Field Maintenance Shop Complex, Bluegrass Army Depot, Richmond, KY - 102,375 SF; LEED Silver Design Criteria
 - Indiana ARNG 76th Brigade Combat Team Readiness Center, Lawrence, IN - 109,555 SF; LEED Certified Design Criteria
 - Kentucky ANG 123rd Airlift Wing Contingency Response Group Facility, Louisville, KY - 54,400 SF; LEED Silver Design Criteria



Engineers · Architects · Planners

State of West Virginia
Department of Administration, Purchasing Division
July 18, 2011
Page 2

- **Local Presence:** Williamson-Shriver is based in Charleston, and provides strong local architectural representation for our project team. Their knowledge of local conditions, familiarity with local codes and permitting, and expertise with WV contractors, will be important to the overall success of the project. They are available to be at your office or at the jobsite on extremely short notice should the need arise. Moment Engineers and Potesta & Associates, both West Virginia based, fill the roles of structural and geotechnical/civil, respectively.
- **National Emergency Operations Consultant:** Our subconsultant, Mission Critical Partners (MCP) has more than 25 years of experience in planning, designing and integrating mission critical technology and operations into new and renovated facilities. MCP's experience includes emergency operations center and 9-1-1 facility planning, design and implementation services for clients such as the Department for Homeland Security.
- **Capacity:** GRW has more than 230 employees, including a building design studio of 17 architects and more than 40 structural, civil, mechanical and electrical engineers and technicians. The anticipated workload for this assignment is well within the available capacity of the firm. This capacity is supplemented by the 19 architectural staff members of Williamson-Shriver.

GRW's corporate culture is one of close collaboration with the Owner to ensure a timely, cost-effective and functional project. This philosophy is shared by our collaborating team members. We are exceptionally familiar with National Guard facility requirements and design guidelines. We maintain a current library of all applicable NGB and UFC publications associated with facility design and construction. Regardless of a project's size, complexity or schedule, we leverage our unique insight and perspective to move projects forward in a timely manner, while facilitating clear, frequent and open lines of communication.

We look forward to the next step in your A/E selection process. Please contact me if you have any questions regarding this EOI.

Sincerely,

A handwritten signature in black ink, appearing to read 'Shane Lyle'. The signature is fluid and cursive, with a long horizontal stroke at the end.

Shane Lyle, AIA, Vice President
Email: slyle@grwinc.com



Engineers · Architects · Planners

**Expression of Interest
Architecture and Engineering Services
State Emergency Crisis Operations Center
West Virginia Army National Guard
RFQ DEFK11031**

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1.0 Introduction to GRW Team



Founded over 40 years ago, GRW is a full-service architectural, engineering, and planning firm with a building design studio of 17 architectural professionals and more than 40 electrical, mechanical, civil and structural engineers and technicians.

By bringing together our multidisciplinary design team with all building stakeholders early in the planning stages, GRW is able to drive aggressive project schedules while keeping projects on budget.

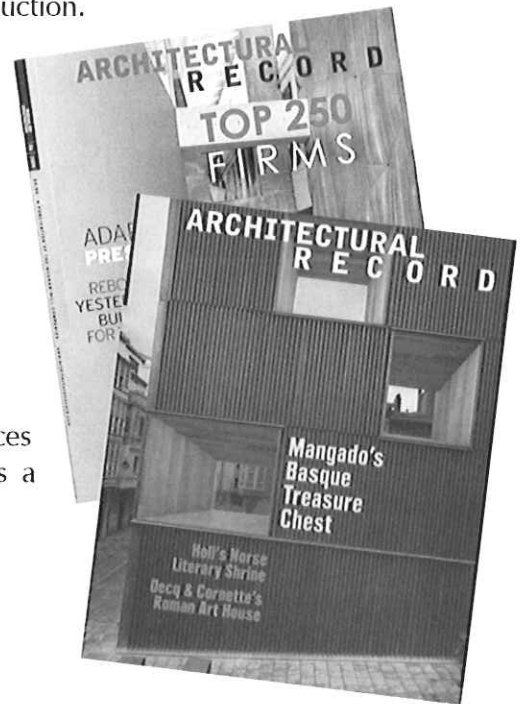
Our vast project experience includes facility renovations and expansions, as well as new multi-million dollar facility construction for federal, local and state governments, and commercial markets. Using the principles of sustainable design, our architects and engineers improve the functionality, operating efficiency, aesthetics and long-term value of our clients' building projects. GRW strives to deliver "whole building" designs that not only maximize the potential of the site, but also integrate the architectural and engineered features of the building in relation to its environment. In addition, we have 13 LEED Accredited Professionals in key disciplines (architecture, electrical, mechanical, structural, sanitary and civil), and we have designed or are in the process of designing more than 1,800,000 SF of LEED registered projects

The quality of our work is further demonstrated in the numerous awards our projects have won, both on national and state levels. Our projects have received awards from the American Institute of Architects, the American Council of Engineering Companies, the U.S. Air Force, the U.S. Army Corps of Engineers, and the U.S. Environmental Protection Agency. Also included in the benchmarks of our firm's history are several prestigious, national rankings.

- As published in the *Architectural Record*, GRW is among the Top 250 Architecture Firms in the U.S.
- According to *Building Design and Construction's* Giants 300 report, GRW is 35th among the magazine's listing of the Top Engineer-Architect Firms in design and construction.
- GRW is ranked by *Public Works* as a Top AEC Firm (architecture, engineering, and construction) serving the government market.
- GRW is also listed in the Top 100 of Giants for Mechanical/Electrical Engineering Consultants in the *Consulting-Specifying Engineer*.
- Since 1972, GRW has been continually ranked in *Engineering News Record's* Top 500 Design Firms in the U.S. We are also ranked in the journal as a Top 100 Green Design Firm and a Top 200 Environmental Firm.

As a national design firm of more than 230 professionals with offices in Kentucky, Indiana, Ohio, Tennessee and Texas, GRW offers a wide range of professional services including:

- Architecture
- Mechanical Engineering
- Electrical Engineering
- Structural Engineering
- Water & Wastewater System Engineering
- Site/Civil Engineering



- Transportation Engineering
- Master Planning
- Aerial Mapping and Surveying
- Geographic Information Services
- Construction Administration and Resident Project Representation (Inspection)
- Operations & Management Support
- Cost Estimating
- Alternative Project Delivery Methods (Design/Build, CM)
- Sustainable Design
- Anti-Terrorist Force Protection and Physical Security
- Three Dimensional Modeling
- AutoCAD, Microstation, and Revit® (BIM) Deliverables

Building Information Modeling (BIM)

GRW has hardware and software for virtually any A/E project, and we are experienced in the use of this equipment for a very wide variety of project applications. Our computer aided drafting and design software includes the most current versions (via subscription service) of MicroStation (40+ licenses) and AutoCAD (70+ licenses) products.

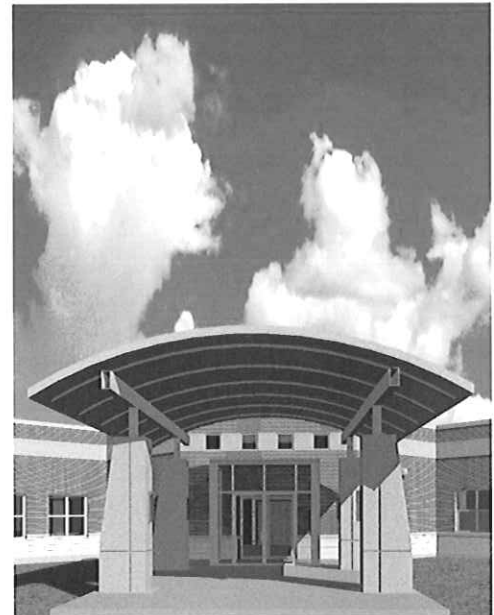
For several years, GRW has been transitioning away from two dimensional drafting to three dimensional modeling of structures, and embedding more intelligence into our projects' digital files through the use of products like AutoCAD Revit Architectural, MEP, Structural and Suites, and Civil 3D, as well as the Bentley TriForma Suite. We firmly believe that building information modeling (BIM) software is the future of computer-aided design, allowing for intelligent, 3D digital building models to be developed during the design process. Any design change is automatically updated throughout the digital model instantly, with no user interaction to manually update any view. Thus, designs and documentation stay coordinated, consistent, and complete.

One particular advantage is the ability to identify conflicts within the construction drawings. The software identifies parts of the building in conflict or clashing through a detailed computer analysis of each part in relation to the total building, and then notifies the design team of these conflicts for appropriate correction. The software also provides a value-added benefit to our clients, in that the resulting digital building model can be used for life-cycle costing and facility management. Quantities and shared properties of materials can easily be extracted. In addition, the BIM model automatically generates a material take-off that can be directly linked to industry-standard cost estimating software. Thus, the design team can quickly investigate the implication that a proposed design change might have to the overall cost of the project. The automatically generated take-off will be selectively double-checked by hand, to make sure that nothing is being missed. This check and balance procedure ensures the most accurate cost estimating that is available.

We are excited to be able to offer this cutting-edge CAD technology to our clients, and we are firmly convinced that the results, both in terms of better design visualization and better coordination, offer definite and quantifiable advantages over traditional CAD software.

GRW has used BIM software on a variety of projects for federal, state and local governments, as well as commercial clients. A few of these projects include:

- **Kentucky Air National Guard Offices and Warehouse for 123rd Airlift Wing Contingency Response Group, Louisville, KY** – This 54,400 SF facility includes a 2-story, 26,900 SF office/administration building and a 24,500 SF high-bay warehouse
- **Marshall University Engineering Lab, Huntington, WV** - This 16,000 SF facility houses materials, soils, hydraulics, structural, and environmental laboratory space, as well as classroom space and faculty offices.
- **Twin Lakes Emergency Services Building, Albany, KY** - This 12,150 SF building will house the fire department (four truck bays), EMS (six truck bays) and 911 service. Additional building facilities include equipment and storage areas, sleeping quarters, kitchen, conference and training room, offices and 911 dispatch workstations.
- **Ohio Army National Guard Joint Armed Forces Reserve Center and Field Maintenance Shop, Springfield, OH** - GRW designed this new 108,126 SF Joint Armed Forces Reserve Center (AFRC) and Field Maintenance Shop (FMS) for the Ohio Army National Guard (ARNG) and the US Army Reserves. The buildings include a diverse array of spaces, such as administrative areas, classrooms, library and training center, distance learning area, weapons simulator, assembly hall, storage areas and vehicle work bays.
- **West Virginia Air National Guard Communications Facility, Charleston, WV** - This 13,100 SF facility will provide a centrally located common user communications system for both intra-base and off-base communications. Initially, consideration was given to a 10,000 SF Joint Operations Center in the basement of this facility for state and national emergency situations. With Autodesk® Revit® software, the drawings were easily changed to meet the new scope of work.



LEED Design

The primary consensus industry standard for determining the sustainable or “green” attributes of a given design is the Leadership in Energy and Environmental Design (LEED) Certification Process, developed by the United States Green Building Council (USGBC) and now administered by the Green Building Certification Institute (GBCI). There are other rating systems and programs such as SPiRiT, Green Globes, and Energy Star, but none have the same level of mass acceptance that has been achieved by USGBC. Many state and municipal governments have incorporated LEED requirements into local ordinances and state laws for high performance buildings in their jurisdictions.

GRW is actively involved in USGBC both on a national and local level, and we have 13 LEED Accredited Professionals in key disciplines (architecture, electrical, mechanical, structural, sanitary and civil). Our commitment to preserving sites and energy, incorporating renewable resources into our projects, and reducing waste has led to better employment of LEED in the planning, design, and construction of new and renovated facilities.

LEED rating systems are based on accepted energy and environmental principles that strike a balance between known established practices and emerging concepts organized into five environmental categories (Sustainable Sites, Water Efficiency, Energy & Atmosphere, Materials & Resources, and Indoor Environmental Quality). Bonus credits are available for innovative design and projects that address regionally specific issues.

GRW has designed or is in the process of designing more than 1,800,000 SF of LEED projects:

- **LEED® Certified Design Criteria** - West Virginia ANG 130th Airlift Wing Squadron Operations Facility Repair, Charleston, WV
- **LEED® Certified Design Criteria** - West Virginia ANG Communications and Audio/Visual Facility, Charleston, WV
- **LEED® Silver Design Criteria** - West Virginia ARNG Joint Armed Forces Reserve Center and Area Maintenance Support Activity Facility, Ripley, WV (charrette only)
- **LEED® Gold Design Criteria** - Texas ANG Electronic Countermeasures Facility, Carswell AFB, Fort Worth, TX
- **LEED® Silver Design Criteria** - Ohio ARNG Armed Forces Reserve Center and Field Maintenance Shop, Springfield, OH
- **LEED® Silver Design Criteria** - Kentucky ARNG Armed Forces Reserve Center and Field Maintenance Shop, Richmond, KY
- **LEED® Silver Design Criteria** - Kentucky ARNG Armed Forces Reserve Center and Field Maintenance Shop, Paducah, KY
- **LEED® Silver Certified Criteria** - U.S. Penitentiary and Satellite Camp, Yazoo City, MS
- **LEED® Silver Design Criteria** - Colorado ANG Weapons Release Facility, Buckley AFB, CO
- **LEED® Silver Design Criteria** - Kentucky ANG Contingency Response Group (CRG) Facility, Louisville, KY
- **LEED® Silver Design Criteria** - Texas ANG Security Forces/Composite Support Facility, Carswell AFB, Fort Worth, TX
- **LEED® Silver Design Criteria** - Texas ANG Munitions Maintenance Shop, Ellington Field, Houston, TX



- **LEED® Silver Design Criteria** - Air Force Special Operations Command C-130 Hangar Complex, Cannon AFB, NM
- **LEED® Certified Design Criteria** - Dallas Executive Airport Improvements, Dallas, TX
- **LEED® Certified Design Criteria** - Indiana ARNG Army National Guard Readiness Center, Lawrence, IN
- **SPiRiT Gold Rating Design Criteria** - Michigan ARNG/ANG Joint Forces Headquarters, Lansing, MI (design charrette only)
- **LEED® Certified Design Criteria**- Northpoint Correctional Facility, Burgin, KY

Subconsultants

M **Mission Critical Partners, Inc.** (MCP) is committed to delivering top quality technical and operational consulting services to help mission critical managers excel in meeting challenges. Headquartered in State College, PA, with offices in Harrisburg, PA and Southlake, TX, MCP serves clients throughout North America. Their award-winning team consists of former public safety managers, project management professionals (PMPs), and technology, forensic and policy specialists.

MCP's general service areas include:

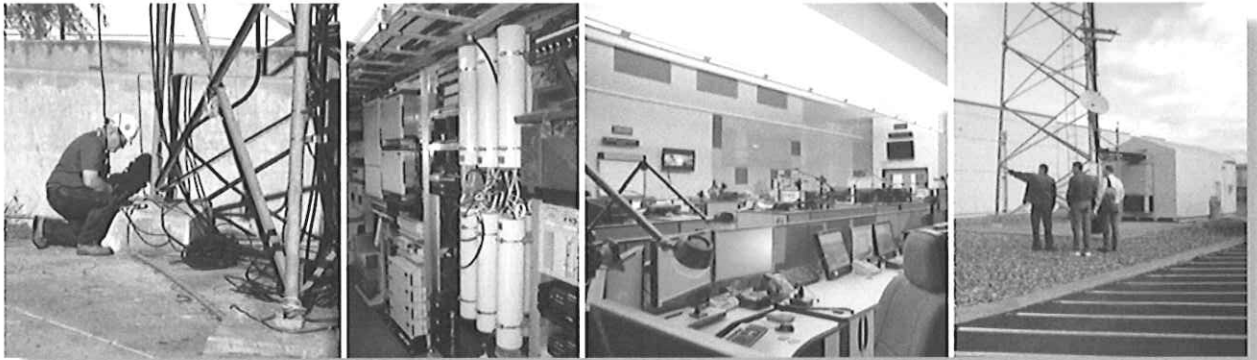
- Executive Consulting/Master Planning
- Next Generation 9-1-1 Services
- Facility/Technology Integration
- Broadband Deployment
- Consolidation Services
- Emergency Management Communications
- Land Radio Management
- Forensics/Systems Analysis

Furthermore, MCP brings more than 25 years of experience in planning, designing and integrating mission critical technology and operations into new and renovated facilities. The firm team applies that hands on experience with Public Safety Answering Points (PSAPs), Emergency Operations Centers (EOCs), Fusion Centers and Call Centers to develop the solution that best fits the client's needs. MCP is familiar with the requirements of mission critical facility architectural and engineering design, and is highly qualified to manage the many complexities that arise with each building project. MCP also applies their understanding of all elements of the facility construction including site development, electrical, mechanical, structural, security and technology to coordinate systems install, acceptance, training and operational transition.

The focus of every project is to optimize the functional use of the space for operational integrity. MCP works closely with the client to develop the technology solutions, migration schedule and operations floor layout.

MCP's facility and technology planning, design and integration services include:

- **Facility Planning and Programming**
 - Hazard Vulnerability Assessment
 - Spatial Allocation
 - Adjacency Requirements
 - Workstation Orientation
 - Power, HVAC, Security and Structural Requirements
 - System Redundancy and Diversity
 - Infrastructure Requirements
 - Tower Location and Path Studies
- **Facility Construction Coordination**
 - Project Management
 - System Install Coordination
 - Contractor Resolution
 - Systems Acceptance
 - Commissioning, Training, Scheduling, Migration/Transition Planning
- **Design Solutions**
 - Architectural Coordination
 - Low Voltage and Data Cable Management
 - Rack, Cable Tray, Pathway and Conduit
 - All Mission Critical Systems (CAD/RMS, CPE and Telephony, Logging, Video Walls, Workstations, Consoles and Interfaces, Security, Network & Tower)
 - Procurement Support (RFP Development, Vendor Proposal Review/Recommendation/ Selection/Negotiation)
- **Migration and Transition Services**
 - Project Management
 - Scheduling
 - Vendor Coordination
 - Cutover Support
 - Decommissioning services



Mission Critical Partners supports emergency managers with expertise in emergency operations, incident command, and the planning and systems designated to support operational integrity.



Williamson Shriver Architects is an award-winning, multi-disciplinary design firm that has been in business since 1967. While specializing in educational planning and design, the firm provides design services to a diverse client base throughout West Virginia. With construction values exceeding one billion dollars over its history, the size and scale of Williamson Shriver Architects' projects have ranged from detailed designs for small interior renovations to large multi-million dollar new facilities. Large or small, simple or complex, every project has the firm's commitment to diligent, well thought-out design; functional and distinctive buildings reflect the clients' vision and communities' spirit.



MOMENT
engineers, inc.

Moment Engineers, Inc. is a professional consulting firm specializing in structural engineering. The firm serves the architectural and building construction communities throughout West Virginia. Based in Charleston, West Virginia at 179 Summers Street, Moment Engineers was founded by Douglas Richardson in early 2005.

During his more than 20 years of experience, Mr. Richardson has had sole responsibility for the structural engineering design of more than 5 million square feet of built space. The construction costs of these projects exceed a half billion dollars. This experience, which ranges from small to very large multi-phase projects, is invaluable in providing the technical expertise and creative flexibility to deliver results in a prompt and reliable manner. Furthermore, Moment Engineers' staff experience encompasses a wide variety of building types and sectors, and our expertise includes design analysis for steel, concrete, masonry, and wooden structures.

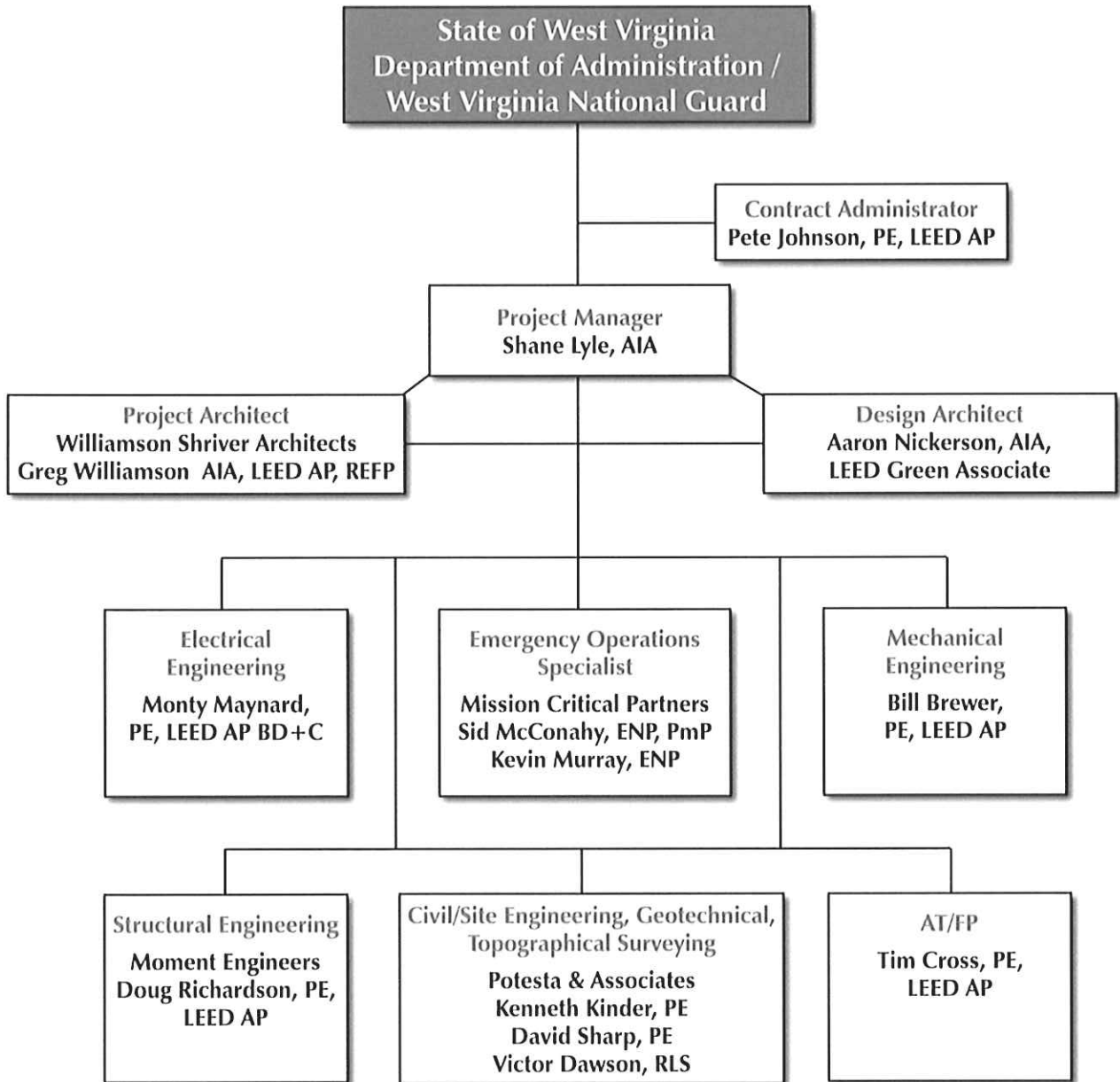


Potesta & Associates, Inc. (POTESTA) was founded in 1997 to provide quality engineering and environmental consulting services to a wide variety of private and public clients in West Virginia and the eastern United States.

The firm has grown to a staff of more than 100 people, including more than 30 engineers, about half of whom are registered professional engineers. POTESTA's diverse staff includes civil, geotechnical, environmental, mining and chemical engineers, Licensed Remediation Specialists, site designers, surveyors, CADD designers, biologists, toxicologists, ecologists, geologists, hydrogeologists, foresters, stream restoration design specialists, occupational safety and health specialists, field technicians, a land management team and support personnel. Services are provided from the firm's headquarters in Charleston, West Virginia and branch offices in Morgantown and Winchester, Virginia. For the WV ARNG Operations Center, POTESTA will provide civil/site and geotechnical engineering, as well as surveys.

2.0 Project Team Organization and Resumes

GRW has assembled a project team of professionals with specific experience in the design of emergency operations centers. Each team member has unique architectural or engineering experience that is critical to the successful design of this project. As the lead firm, GRW will be the primary contact with the Owner. Our services will include project management; architecture, and mechanical, electrical, and civil engineering.



Team members are GRW employees unless otherwise noted.

Shane Lyle, AIA GRW Project Manager



Years of Experience: 28 **Years with GRW:** 22

Education

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

Registration

Registered Architect: KY, WV, TN, AL, IN, TX, MS

National Council of Architectural Boards Certification

Certified Interior Designer (Kentucky)

Professional Affiliations

Past President - East Kentucky Chapter (Lexington), American Institute of Architects

Member / Past Officer - UK College of Architecture Alumni Association

Life Member - UK Alumni Association

Qualifications and Similar Project Experience

With 28 years of experience, Mr. Lyle has had primary responsibility for a wide range of architectural projects for 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.

West Virginia ANG 130th Airlift Wing Communications Facility, Charleston, WV - Project Manager.

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

West Virginia ARNG 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 167th Airlift Wing Maintenance Mall (Building 307) Repair, Martinsburg, WV -

Project Manager. Concept Development Report for facility which requires electrical modifications to meet needs of current occupants' activities, and investigation/resolution of temperature control in numerous locations. Report included detailed discussion of current electrical, architectural and HVAC system problems; recommendations to resolve large-system problems, as well as particular solutions for small areas; conceptual level drawings; conceptual level outline specification; and construction cost estimate.

West Virginia ANG 130th Airlift Wing Building 107 Consolidation Study, Charleston, WV - Project Manager. Consolidation Study for historic hangar which will be renovated in phases to house Aero-Medical Evacuation Squadron, new Aerial Port Facility and Deployment Processing Center, and mobility storage for Security Forces Squadron. Work includes floor plans for each phase as well as final floor plan and construction cost estimate. Major challenge involves consolidation of organizations with a total authorized area of over 50,000 SF into facility with 40,000 SF footprint - no additions are allowed. AT/FP, energy and ADA accessibility measures will be incorporated, as well as current ANG guidelines.

West Virginia ANG 130th Airlift Wing Communications Facility Code / Criteria Review, Charleston, WV - Project Manager. Code/Criteria Review and LEED Update Report for facility designed to 65% three years prior under separate GRW/NGB contract then put on hold pending funding. Twofold project goal included: 1) identify and delineate known codes/criteria that are either new or updated since 65% Design Submittal; and 2) describe revised LEED 3.0 criteria now in effect for project and outline points for LEED Silver certification, compared to LEED Silver 2.2 criteria in effect at the 65% design stage.

Ohio ARNG Joint Armed Forces Reserve Center and Field Maintenance Shop Complex, Springfield, OH – Architect for Project Planning Document Charrette as part of design for new LEED Silver 85,865 SF complex serving both Ohio Army National Guard and U.S. Army Reserves. Provided Joint Armed Forces Reserve Center (AFRC) totaling 60,902 SF, and Field Maintenance Shop (FMS) totaling 24,963 SF. 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.

Marshall University Engineering Laboratory, Huntington, WV - Project Manager. 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.

Harlan County Justice Center, Harlan, KY - Principal-in-Charge. Design for a new, \$6.3 million, 31,500 SF judicial courts facility providing circuit court clerk offices, district courtroom (150 seats), district judges chambers, circuit courtroom (150 seats), circuit judge's chambers, grand jury facilities, related support facilities, improved defendant loading and unloading security, and extensive computer networking systems.

Barbourville Utility Commission Office Building, Barbourville, KY - Project Manager. Design for a 5,300 SF office building for the local provider for cable TV, electric and internet service, providing a large public lobby, a teller area, drive-through window, conference room, multiple offices, support spaces, and vault.

Aliceville Federal Correctional Institution and Satellite Camp, Aliceville, AL - Project Manager. Design-build delivery of a \$188 million women's medium-security Federal Correctional Institution (70-acre site) and minimum-security Federal Prison Camp (20-acre site) totaling 624,312 SF, housing approximately 1,790 inmates. FCI includes three 4-story housing units. Campus includes perimeter security, closed circuit television, telephone, door control and monitoring, paging, intercom, inmate duress alarms, inmate telephone system, structured data cabling systems, control panels, consoles, and fiber optic cable distribution systems. Systems were integrated into a functional security management and control system. Campus-wide power metering network with internet connection provides web access remotely.

Pete Johnson, PE, LEED AP GRW Contract Administrator



Years of Experience: 44 **Years with GRW:** 14

Education

PhD Studies, Environmental Engineering, 1971, Oklahoma State University
M.S., Environmental Engineering, 1967, Oklahoma State University
B.S., Civil Engineering (Sanitary Specialty), 1966, University of Missouri-Rolla

Registration

Professional Engineer: KY, OH, IL, IN, MO, WV
LEED Accredited Professional
Value Engineer
AHERA Asbestos Inspector, Mgmt. Planner: MO, IL

Professional Affiliations

Society of American Military Engineers	Design Build Institute of America
Air Force Association	Water Environment Federation
Association of U.S. Army	American Water Works Association
Veterans of Foreign Wars of the United States	American Society of Civil Engineers
National Society of Professional Engineers	

Qualifications and Similar Project Experience

Mr. Johnson is the GRW's Director of Military Programs. In this role, he is responsible for the administration, coordination and personnel assignments of multi-discipline teams of GRW staff and consultants on military projects undertaken by the firm. He provided project management, coordination and QA/QC oversight on more than 50 ANG and ARNG task orders awarded to GRW under its NGB IDIQ A/E services contract, as well as several task orders under GRW's IDIQ Contract with the West Virginia National Guard. He has also led programming and design charrettes, authored concept proposal and concept development reports, developed construction cost estimates, prepared specifications, led VE reviews, oversaw subconsultants, coordinated project submittals, and provided LEED documentation for most of these task orders. Mr. Johnson is a retired US Army Reserves Engineer Officer (O-6), a position in which he commanded reserve units in combat as well as serving as Deputy Chief of Staff for Facilities and ARCOM Deputy Commander, where he was responsible for new Armed Forces Reserve Centers and related facilities in a two-state area.

Mr. Johnson has provided contract and/or project oversight for the following projects:

West Virginia ARNG Live Fire Exercise Shoot House, Camp Dawson, WV - Design for innovative re-use of a recently-acquired former industrial complex adjacent to Camp Dawson to provide a \$2 million Live Fire Exercise Shoot House, including shoot house to be housed in a metal warehouse, operations / storage, after action review (AAR) facility, ammunition breakdown facility, warehouse restroom renovation, access road and parking area, and utility services. Completed conceptual design for LFSH facility with final design and construction of LFSH completed by selected vendor (design / build); balance of facilities delivered with traditional design / bid / build approach.

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

West Virginia ANG 130th Airlift Wing Squadron Operations Facility Repair, Charleston, WV - Design and construction services (Type A, B & C) for \$2.5 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. Final design allows for efficient use of space; HVAC, electrical and fire protection systems upgrade; and roof repairs. Designed to achieve USGBC LEED Certified rating and ANG Sustainable Design criteria.

West Virginia ANG 130th Airlift Wing Communications Facility, Charleston, WV - Principal-in-Charge. 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 Maintenance Mall (Building 307) Repair, Martinsburg, WV - Concept Development Report for facility which requires electrical modifications to meet needs of current occupants' activities, and investigation/resolution of temperature control in numerous locations. Report included detailed discussion of current electrical, architectural and HVAC system problems; recommendations to resolve large-system problems, as well as particular solutions for small areas; conceptual level drawings; conceptual level outline specification; and construction cost estimate.

West Virginia ANG 167th Airlift Wing Basewide Sewer Line Repair, Martinsburg, WV - Planning, design and construction administration services for replacement of sanitary sewer system, circa 1954. Pipe includes combination of various construction materials including vitrified clay pipe (VCP) with dilapidated sections allowing high rates of inflow and infiltration during storm events.

West Virginia ANG 167th Air Wing POL Complex Demolition Design, Martinsburg, WV - Engineering services preparing plans and specifications for the demolition of the former POL Complex, including two 305,000-gallon aboveground POL tanks and surrounding secondary containment structure, below ground piping, oil / water separator, fuel recovery tank, fuel loading and unloading facilities and piping and equipment in the Pump Building. Some of the existing equipment was set aside for government re-use (fuel pumps, major valves and instrumentation).

West Virginia ANG 130th Airlift Wing Communications Duct, Charleston, WV - Principal-in-Charge. Concept Development Report to select a preferred concept for a new duct system for routing the base's communications network to a new Communications Facility. New fiber optic cable for base network will consist of two ITNs (Information Transfer Nodes); ITN-1 in the new Communications Facility and ITN-2 in new hangar, Building 407. Duct bank will carry fiber optic lines, television and coaxial cabling; allows looping of current system; and provides redundancy of assets. A 4-duct and a 12-duct PVC conduit system with inter-duct is proposed.

Aaron Nickerson, AIA, LEED Green Associate GRW Design Architect



Years of Experience: 6 **Years with GRW:** 5

Education

Bachelor of Architecture (with honors), 2006, University of Kentucky
Master of Architecture, 2007, University of Kentucky

Registration

Registered Architect: KY
National Council of Architectural Registration Boards (NCARB) Certification
LEED Green Associate

Professional Affiliations

American Institute of Architects (AIA)
National Council of Architecture Registration Board (NCARB)
U.S. Green Building Council (USGBC)

Qualifications and Similar Project Experience

While at the University of Kentucky, Mr. Nickerson received Excellence in Architectural Design Award and Excellence in Digital Visualization Awards. He has experience with building construction, cabinet and casework construction, as well as an extensive knowledge of digital visualization tools. His primary responsibilities include programming, code research, schematic design, design development, construction documents and construction administration.

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

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

Marshall University Engineering Laboratory, Huntington, WV - Architectural Designer. A/E design for a new, 16,000 SF Engineering Laboratory Building on the main campus providing laboratories for materials,

soils, hydraulics, structural, and environmental studies, classrooms and faculty offices. Building security systems included access control and CCTV. HVAC systems feature rooftop VAV systems with variable electric reheat.

Yazoo City U.S. Penitentiary and Satellite Camp, Yazoo City, MS - Architectural Designer. Design services for design/build delivery of a \$175 million medium-security main complex (USP) and minimum-security prison camp (FPC), on track for LEED Certification, with a gross building area of 780,000 SF and housing approximately 1,200 inmates. USP includes six, 2-story housing units, a secure housing unit, and program and multipurpose functions in rectangular campus layout enclosing a central secure compound.

Northpoint Training Facility Replacement, Burgin, KY - Architectural Designer. Design and construction oversight services for fast-track project with multiple bid packages to rebuild prison facilities (41,646 SF total) following riot. Meeting LEED Certified Design Criteria, two new building include: Program Building (kitchen/dining, medical, canteen, multipurpose classrooms, library, and sanitation) and Visitation Building. Additional work involved security system renovation at six existing two-story dormitories, and new campus emergency power generator.

Air Force Special Operations Command C-130 Hangar Complex, Cannon AFB, NM - Architectural Designer. 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), utility service, pavements and other site development features. Involved 3-day charrette to develop conceptual site and floor plans, narratives of functional areas, requirements for facility system design (architecture, civil/site, HVAC, electrical, security, communications, Antiterrorism/Force Protection, utilities, etc), recommended design criteria, functional area adjacency requirements, a parametric cost estimate and a detailed room requirements sheet for each space, Conceptual Design with Performance Specification and Design Analysis to support a request for proposal for design-build delivery. Project designed to meet LEED Silver criteria.

Aliceville Federal Correctional Institution and Satellite Camp, Aliceville, AL - Architectural Designer. Design-build delivery of a \$188 million women's medium-security Federal Correctional Institution (70-acre site) and minimum-security Federal Prison Camp (20-acre site) totaling 624,312 SF, housing approximately 1,790 inmates. FCI includes three 4-story housing units. Complex buildings designed for LEED Certification and under Federal Leadership in High Performance Building Standards. Highlights in sustainable design include: recycled and treated laundry waste water; stormwater detention ponds design to allow on-site infiltration to reduce runoff and pollution of receiving streams; water efficient landscaping; 30% reduction of water use resulting from low-flow plumbing fixtures; on-site renewable energy and measurable optimized energy performance; and attention to indoor environmental quality.

Allen County Extension Office, Scottsville, KY - Architectural Designer. Design for renovation of a historic, 6,600 SF tractor dealership into cooperative extension offices and meeting facility with catering kitchen, including façade restoration, new interior layout, new elevator, catering kitchen, demonstration kitchen, offices, large meeting room, conference room, restrooms and supporting facilities.

Four Roses Office Building, Lawrenceburg, KY - . Design services for approximately \$1.2 million, 9,000 SF office building design/build project. Style respects existing Spanish Mission style distillery building at Four Roses Distillery including articulated roofs, gable parapets and decorated stucco. Structural frame consists of hybrid of cold-formed steel framing and traditional hot-rolled structural steel. Structure is built into hillside requiring concrete earth-retaining walls at ground level.

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



Years of Experience: 34 **Years with GRW:** 15

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

NCEES Member allows reciprocity with other states

LEED Accredited Professional, Building Design + Construction

Professional Affiliations

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

Design Build Institute of America

Ohio Valley Region, Design Build Institute of America

Air National Guard Civil Engineering Association Life Member (Associate)

Society of American Military Engineers

American Water Works Association

Qualifications and Similar Project Experience

Mr. Maynard has 34 years of experience with electrical and mechanical design, process instrumentation and control, and project management. Mr. Maynard has designed electrical and mechanical systems for more than 300 projects with total construction values as high as \$184 million. His areas of technical expertise include electrical power distribution, substation design, alarm systems, communications, lighting, lightning protection, instrumentation/controls/telemetry, power quality, energy efficiency and code compliance.

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

West Virginia ANG 130th Airlift Wing 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.

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.

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.

Kentucky ARNG Joint Armed Forces Reserve Center and Field Maintenance Shop Complex, Bluegrass Army Depot, Richmond, KY - Project Manager. Design Criteria Consultant for design-build delivery of a new \$18.5 million complex encompassing a 63,250 SF Armed Forces Reserve Center (AFRC) and a 31,725 SF Field Maintenance Shop (FMS), both designed to meet LEED Silver sustainable design rating. Provided RFQ and RFP development, assistance in short-listing and final selection of the design/build team, construction administration and commissioning of the new facilities that included administrative, training, assembly, storage, and vehicle workbays.

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

Indiana ARNG 76th Brigade Combat Team Readiness Center, Lawrence, IN - Electrical Engineer. Comprehensive planning, design and construction administration services for a new 109,555 SF, 2-story Readiness Center and 8,300 SF unheated storage facility. Includes site Antiterrorism / Force Protection (AT/FP) measures, security lighting; energy management and control system, intrusion detection system, mass notification system; stormwater bio-retention pond.

Marshall University 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.

Bill Brewer, PE, LEED AP GRW Mechanical Engineer



Years of Experience: 40 **Years with GRW:** 12

Education

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

Registration

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

NCEES Member, allows reciprocity with other states

Professional Member, Society of Fire Protection Engineers

LEED Accredited Professional

Professional Affiliations

American Society of Mechanical Engineers

American Society of Heating, Refrigeration and Air Conditioning Engineers

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

Qualifications and Similar Project Experience

Mr. Brewer has 40 years of engineering experience with building and industrial process systems. He has extensive experience in the design, application and trouble-shooting of environmental and process systems, particularly HVAC, plumbing and fire protection systems.

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 Maintenance Mall (Building 307) Repair, Martinsburg, WV - Mechanical Engineer, Project Manager. Concept Development Report for facility which requires electrical modifications to meet needs of current occupants' activities, and investigation/resolution of temperature control in numerous locations. Report included detailed discussion of current electrical, architectural and HVAC system problems; recommendations to resolve large-system problems, as well as particular solutions for small areas; conceptual level drawings; conceptual level outline specification; and construction cost estimate.

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.

VA Medical Center, Cooper Drive Division, Data Center Upgrade, Lexington, KY - Project Manager. Design for upgrades to existing HVAC, electrical, and fire suppression systems for a critical data center in the main hospital building, including creating space for and relocating the existing UPS system, a new UPS, constructing a separate space to accommodate a new clean-agent fire suppression system, upgrading HVAC to meet increased cooling demands of new computer room air conditioning units, reconfiguration of an architecturally-screened equipment area near the front entrance to the hospital.

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

Glenville Federal Correctional Institution and Satellite Camp, Glenville, WV - Mechanical Engineer. Design / build delivery, for a new \$106 million federal correctional complex of 13 buildings totaling 603,132 SF, built on a 125-acre reclaimed mine site. Facilities include three 4-story dormitory buildings (768 inmates in medium security), 2-story segregation unit (96 inmates in medium security), satellite camp (128 inmates in minimum security), separate buildings for administration, medical services, recreation, industrial and vocational, academic instruction, food service, canteen/barber/laundry, warehouse, central utilities plant, vehicle maintenance, security, and site utilities.

Del Rio Police Station, Del Rio, TX - Mechanical Engineer. Site selection, needs assessment, design and construction documents for a new 27,000 SF city police station with detention area and 7,000 SF secured evidence space, including design provision for future expansion, and security systems for access control and intrusion detection, intercom, and multiple CCTV/DVR systems.

Kentucky ARNG Joint Armed Forces Reserve Center and Field Maintenance Shop Complex, Bluegrass Army Depot, Richmond, KY - Mechanical Engineer. Design Criteria Consultant for design-build delivery of a new \$18.5 million complex encompassing a 63,250 SF Armed Forces Reserve Center (AFRC) and a 31,725 SF Field Maintenance Shop (FMS), both designed to meet LEED Silver sustainable design rating. Provided RFQ and RFP development, assistance in short-listing and final selection of the design/build team, construction administration and commissioning of the new facilities that included administrative, training, assembly, storage, and vehicle workbays.

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. 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.

Tim Cross, PE, LEED AP GRW Civil/Site Engineer: AT/FP



Years of Experience: 11 Years with GRW: 8

Education

B.S., Civil Engineering, 2000, University of Kentucky

Registration

Professional Engineer: KY

LEED Accredited Professional

Professional Affiliations

National Society of Profession Engineers

U.S. Army Corps of Engineers, Protective Design Center: 24 hour training on Access Control Point Standards and 15 hour training on Security Engineering and Standards

Qualifications and Similar Project Experience

Mr. Cross has more than a decade of experience with roadway, drainage and site development planning and design. He has completed dozens of projects for private developers and local and state governments. Mr. Cross' large-scale site development experience includes projects for both the Air National Guard (ANG) and Army National Guard (ARNG). He is experienced with the following computer programs: MicroStation, AutoCAD 2008, Carlson Civil 2008, StormCAD and PondPak.

West Virginia ARNG Live Fire Exercise Shoot House, Camp Dawson, WV - Civil Engineer. Design for innovative re-use of a recently-acquired former industrial complex adjacent to Camp Dawson to provide a \$2 million Live Fire Exercise Shoot House, including shoot house to be housed in a metal warehouse, operations / storage, after action review (AAR) facility, ammunition breakdown facility, warehouse restroom renovation, access road and parking area, and utility services. Completed conceptual design for LFSH facility with final design and construction of LFSH completed by selected vendor (design / build); balance of facilities delivered with traditional design / bid / build approach.

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 130th Airlift Wing Aboveground Fuel Storage Dispensing Facility, Charleston, WV - Civil 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 LOX Storage Relocation, Charleston, WV - Project Manager. Type A and B design and construction administration services to relocate LOX function to south end of flight line

to meet operational and installation development plan requirements. Facility includes covered storage facility with adjacent tank storage canopy; elevated pads and spill containment structure for storage tanks; paved entry road; protective fencing; and utilities (electric and communications).

West Virginia ANG 167th Airlift Wing Maintenance Mall (Building 307) Repair, Martinsburg, WV - Civil Engineer. Concept Development Report for facility which requires electrical modifications to meet needs of current occupants' activities, and investigation/resolution of temperature control in numerous locations. Report included detailed discussion of current electrical, architectural and HVAC system problems; recommendations to resolve large-system problems, as well as particular solutions for small areas; conceptual level drawings; conceptual level outline specification; and construction cost estimate.

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.

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

Kentucky ARNG Joint Armed Forces Reserve Center and Field Maintenance Shop Complex, Bluegrass Army Depot, Richmond, KY - Civil Engineer. Design Criteria Consultant for design-build delivery of a new \$18.5 million complex encompassing a 63,250 SF Armed Forces Reserve Center (AFRC) and a 31,725 SF Field Maintenance Shop (FMS), both designed to meet LEED Silver sustainable design rating. Provided RFQ and RFP development, assistance in short-listing and final selection of the design/build team, construction administration and commissioning of the new facilities that included administrative, training, assembly, storage, and vehicle workbays.

Kentucky ARNG Joint Armed Forces Reserve Center and Field Maintenance Shop, Paducah, KY - Civil 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. 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.



Kevin Murray, ENG
MissionCriticalPartners President

With more than 32 years of experience in the mission critical communications industry, Kevin Murray is a versatile leader with proven success in the development and leadership of an industry-leading public safety mission critical communication business unit. Kevin's experience includes consultation, operation, supervision, design and implementation of wireless radio, telephone and data networks and systems, as well as planning, design and operations of public safety communications systems. Kevin is dedicated and passionate about working with clients and industry leaders to define and assist in developing and implementing new technology and applications to improve the delivery of public safety services. In his traditional client advocate role, Kevin represents clients in strategic planning, design, procurement, contract negotiation and project management through acceptance and operation commissioning. His strategic leadership responsibilities include, but are not limited to: executive oversight, visioning, business finances, budgeting, policy and procedure development, program development, quality assurance evaluations, project management and technical assistance for the design, operation and implementation of mission critical communications, public safety access and public alert/notifications systems.

EDUCATION

Associate, The Pennsylvania State University, 1979, Forestry

CERTIFICATIONS

Emergency Number Professional (ENP)
Pennsylvania Emergency Management Agency—Certificate
National Fire Academy—Certificate

AFFILIATIONS

Chairman of the 9-1-1 Industry Alliance
Association of Public Safety Communications Officials (APCO)
National Emergency Number Association (NENA)
Pennsylvania Chapter NENA, 9-1-1 Legislative Committee

PROJECT EXPERIENCE

- Department of Homeland Security (DHS)/ FEMA—Communication system planning, design and implementation of an integrated emergency communication system
- Chemical Stockpile Emergency Preparedness Program (CSEPP)—Communication system planning, design and implementation oversight
- Pueblo, Colorado—Emergency Operations Center
- Estill County, Kentucky—EOC technical design, procurement and consultative assistance
- Pennsylvania Emergency Management Agency (PEMA)—State EOC programming, scheduling, systems integration

- Dist. of Columbia, Office of the Chief Technology Officer, Unified Communication and DC Net Projects
- Oregon CSEPP Support
- Cumberland County PA—PSAP/EOC programming, planning, systems procurement
- Greater Harris County, Texas—9-1-1 District, serving the Greater Houston area
- U.S. Department of Transportation—Next Generation 9-1-1 Program
- State of Indiana—Statewide Next Generation IPbased 9-1-1 Network
- State of Pennsylvania—Statewide Wireless 9-1-1 Network
- City of Philadelphia, Pennsylvania—Telecommunications Division, City Net Project
- City of Pittsburgh, Pennsylvania—Department of Public Safety 9-1-1 Data Center Project
- Allegheny County, Pennsylvania—Emergency Service Regional Network and Data Project
- Westchester County, New York—Fire Control 60 Communications Center Programming
- TYCO—Comparative Analysis of Market Position
- Washington Metro Area Transit Auth. Police Communications—Transition Planning and CAD Forensics
- State of New Jersey—Department of Revenue Data Center Project
- State of Kentucky EOC – Programming and planning



Sidney M. McConahy, ENP, PMP
***MissionCriticalPartners* Sr. Project Manager**

Sid is a Senior Project Manager with Mission Critical Partners, Inc. He has been actively involved over the past 21 years with emergency services. While in Mifflin County, Pennsylvania, he was instrumental in creating a partial-paid EMS service from a total volunteer service, which continues to set a standard for pre-hospital care. He established a centralized countywide 9-1-1 communication center from four separate individual centers, as well as establishing a common countywide radio system for interoperability capabilities. Sid led the county into the age of computer-aided dispatch (CAD), which involved the readdress of the entire county from a rural address system to an assigned street address system. Sid helped in the pro-active consolidation of two fire companies into one organization to achieve operational efficiency.

CERTIFICATIONS

Emergency Number Professional (ENP)
Project Manager Professional (PMP)
FEMA Emergency Program Manager
FEMA ICS 100, 700, 800

AFFILIATIONS

National Emergency Number Association (NENA)

AWARDS

1996 PA State Jaycees Outstanding Firefighter
1990 Fame Fire Company Earl J. McMillian Award
1996 Mifflin County Jaycees Outstanding Firefighter
1989 Fame Fire Company John C. Snyder Award

EDUCATION

Mifflin-Juniata Vocational School, Lewistown, Pennsylvania, Electronics Associate, Harrisburg Area Community College, Harrisburg, Pennsylvania, 1999, Paramedic

PROJECT EXPERIENCE

- Morris County, New Jersey—Engineering design services for countywide public safety complex (telecommunications/security)
- State of Maine—Statewide review of protocol use and effectiveness of quality assurance systems and certification systems
- Armstrong County, Pennsylvania—Feasibility study planning services
- State of Pennsylvania—Wireless PSAP assessment, regional deployment manager, statewide technical audit
- Pennsylvania Emergency Management Agency EOC Programming and Planning—Support development of a program integration plan for new State EOC including systems procurement and implementation and integration with operations
- Cumberland County Pennsylvania—Project Manager for migration planning, commissioning of systems and operations for new Countywide PSAP and EOC, transition planning

- Perry County, Pennsylvania—Project Manager: wireline/wireless plan submission assistance; procurement and implementation support; general consulting
- Franklin County, Pennsylvania—Project Manager: wireline/wireless plan submission assistance; 400 MHz trunked radio system implementation
- Fulton County, Pennsylvania—Project Manager, facility assessment, procurement and implementation assistance; general consulting
- State of Missouri—Next Generation PSAP assessment
- State of Maryland—Next Generation PSAP assessment
- Bedford County, Pennsylvania—Project Manager, facility transition, procurement and implementation support, general consulting
- Adams County, Pennsylvania—Project Manager, 800 MHz trunked radio system development, procurement and implementation
- Crawford County, Pennsylvania—Project Manager, PSAP assessment, facility evaluations for future PSAP
- Bradford County, Pennsylvania—Project Manager, EMA/9-1-1 Executive Director hiring assistance
- Juniata County, Pennsylvania—Project Manager, general consulting; site-specific wireless accuracy testing services and design and procurement support/project management and implementation support
- Union County, Pennsylvania—Project Manager, general consulting
- Wayne County, Pennsylvania—Project Manager, 9-1-1 network assessment and recommendations
- Local Emergency Management Coordinator (2006-Present)



Gregory A. Williamson, AIA, LEED AP, REFP **Williamson Shriver Architects (Architect/President)**

Mr. Williamson attended the University of Tennessee, where he received his bachelor of architecture degree in 1981. His professional career began at Sverdrup and Parcel and later with Donald L. Moses Associates, both in Charleston. In 1983 he joined Gandee Thomas and Sprouse / GTS Partners as an architect and project designer and obtained his West Virginia registration as an architect in 1985.

In 1994, along with Ted Shriver, Mr. Williamson acquired the firm from founder Kent Gandee, and together they have continued the tradition of quality, client-focused architectural design for which the firm has been recognized. As a design partner, Mr. Williamson has designed such prominent and well-received projects as Cabell Midland High School, Caperton Center for Applied Technology at WVU-Parkersburg, and the Lodge and Conference Center at Chief Logan State Park. Additionally, he represented Williamson Shriver Architects in their role as associated architect on two prominent commissions in Charleston, the United States Federal Courthouse with architect SOM of New York, and the Clay Center for the Arts and Sciences with Kise Straw Kolodner Architects of Philadelphia.

Mr. Williamson is a member of the WV Board of Architects, appointed by Governor Underwood in 1999. He has active registrations in West Virginia, Virginia, Maryland, and Kentucky, and is a holder of an NCARB certificate. He is a past president of the West Virginia Society of Architects, has served as a part time instructor at the University of Charleston, and has also served as a juror on several local or regional design award programs.

Education:

University of Tennessee, 1981, B. Architecture
West Virginia State College, 1978
Winfield (WV) High School 1976

Registration:

Architect, West Virginia No. 2101
Architect, Kentucky No. 4062
Architect, Maryland No. 9945
Architect, Virginia No.0401 011183
NCARB Cert. No. 33662
Green Building Certification Institute LEED Accredited Professional (LEED AP)

Affiliations:

West Virginia Board of Architects 1999-Present
American Institute of Architects
American Institute of Architects - WV Chapter
President 1994 & 1995
Contractors Association of WV
Council of Educational Facility Planners International (CEFPI)
CEFPI Recognized Educational Facility Professional (REFP)
Putnam County Board of Zoning Appeals
Member - 1997 to 2001
US Green Building Council, (USGBC)

Related Experience:

Part-time Instructor, University of
Charleston Carlton Varney School of
Art & Design, 1987-1988

Part-time Instructor, West Virginia State
College, Industrial Technology, 1988

Selected Project Experience:

Partner-in Charge for:

Berkeley County 2008 Bond Program, Spring Mills Primary School - LEED Silver, SBA's 1st Green School

Brooke High School Wellness Center

Cabell Midland High School

Caperton Center for Applied Technology

International Coal Group Headquarters

Marsh Fork Elementary

Massey Coal Services Office Building

Putnam County 2008 Bond Program

Shepherd College Stadium Addition



KENNETH W. KINDER, P.E.
POTESTA Civil/Site Engineer

PROFESSIONAL REGISTRATION

Professional Engineer, WV Board of Professional Engineers

CERTIFICATIONS

Troxler Nuclear Density Equipment Operator, 2001

Humboldt Scientific, Inc. HAZMAT Training Certification, 2005

EDUCATION

B.S. Civil Engineering, 2003, West Virginia University Institute of Technology, Montgomery, WV

EMPLOYMENT HISTORY

2003-Present, Potesta & Associates, Inc.

May 2000 - Potesta & Associates, Inc.

May 2003

1995-2000 Eagle Surveying, Inc.

PROFESSIONAL AFFILIATIONS

American Society of Civil Engineers (ASCE)

AREAS OF SPECIALIZATION

Civil/site design, hydrology analysis, hydraulic design, stormwater management, floodplain management, erosion and sediment control, wastewater treatment, computer modeling associated with hydrology and hydraulics, geotechnical, construction monitoring, computer aided drafting, land surveying.

PROFESSIONAL EXPERIENCE

Civil/Site Design

Developed a civil site design for a proposed petroleum storage tank farm in Raleigh County, WV. Tasks included preparing a boring layout for geotechnical drilling, boring observation, preparing construction drawings to show proposed grading, and determining the volume of excavation required. Coordinated the design of reinforced concrete foundations and slab with structural engineer.

Assisted with the civil site design for the Spring Hill Apartment Complex in Charleston. Tasks included regrading the site to accommodate new housing facilities, design of the storm drainage system, and meeting stormwater runoff requirements of the City of Charleston.

Assisted with the civil site design for a proposed pharmacy school building for the University of Charleston. Tasks included preparing a proposed grading plan, coordinating connections to existing utilities, and assisting with stormwater management.

Hydrology and Hydraulic Design

Completed the design of proposed ephemeral and intermittent stream mitigation channels on several projects located at active and reclaimed mine sites. Tasks included delineating drainage areas, computing runoff, and designing stream channels with a main channel to contain a 1-year to 2-year storm event and a riparian zone which would contain a 10-year storm event.

Assisted with the design of a proposed gravity and force main sewer line project to convey sanitary sewage and landfill leachate. Tasks included coordinating the location of sewer taps, hydraulic design of the system, preparing permit applications, preparing construction bid documents, and preparing an estimate of probable construction costs.

Completed hydraulic design of components associated with three membrane bioreactor (MBR) wastewater treatment plants. Tasks included sizing gravity and force main process piping, slidegates, flow control weirs, and other components for head works and tail works of the treatment plant.

Stormwater Management

Performed a stormwater runoff evaluation for the existing Wal-Mart in Lewisburg, WV. Tasks included evaluating the performance of an existing stormwater management pond and redesigning the outlet structure to meet the pre-development peak runoff flows. PondPack was utilized to model the two stormwater management ponds, which were located in series.

Modeled the drainage system of the Mingo Logan Coal Company Mountaineer Mine using the SedCad software. The hydrologic evaluation was conducted to meet the requirement of a West Virginia Division of Environmental Protection (WVDEP) Surface Water Runoff Analysis (SWORA) which requires that during-mining and post-mining flow rates shall not exceed pre-mining flowrates. The modeling included the evaluation of existing drainage structures and several proposed structures.

Completed the hydraulic design of a stormwater collection system (storm sewer) for a proposed apartment complex in Mason County, WV. Tasks also included the design of a sedimentation pond to meet the WVDEP NPDES construction stormwater requirements. The sedimentation pond was designed to be converted to a permanent stormwater control structure upon completion of construction.

Erosion and Sediment Control

Modeled the drainage system of the Mingo Logan Coal Company Mountaineer Mine using the SedCad software. The hydrologic evaluation was conducted to meet the requirement of a WVDEP SWORA and also include a sedimentologic evaluation. The modeling included the evaluation of existing drainage structures to determine which structures were most efficient at treating sediment laden runoff. Inefficient structures were updated and additional structures were proposed to reduce the sediment discharge to an acceptable concentration.

Assisted with the preparation of several WVDEP NPDES construction stormwater permit applications including two projects associated with construction of the King Coal Highway in Mingo County, WV, which included nearly five miles of roadway and over 30 erosion and sediment control structures. Tasks included computing peak flow rates, design of erosion and sediment control structures, and developing Stormwater Pollution Prevention Plans.

DAVID B. SHARP, P.E.
POTESTA Geotechnical Engineer



PROFESSIONAL REGISTRATION

Registered Professional Engineer: West Virginia, Pennsylvania, Maryland, Ohio and Kentucky

PROFESSIONAL CERTIFICATION

40 hour Hazardous Waste Site Operations and Superfund Worker Protection Training
Troxler Nuclear Densometer Certification
American Red Cross Standard First Aid and CPR Training

EDUCATIONAL BACKGROUND

M.S. Civil Engineering, 1995, West Virginia University
B.S. Civil Engineering, 1993, West Virginia University

AREAS OF SPECIALIZATION

Involved with many aspects of civil engineering with a special interest in the geotechnical/environmental aspects. Responsibilities have included projects involving Civil Site Design, Geotechnical Design; Solid Waste Management Facility Design including geosynthetic applications; hydrologic, hydraulic design; transportation/highway projects, including geotechnical and right-of-way plans; and municipal water and wastewater projects.

PROFESSIONAL EXPERIENCE

Miscellaneous Foundation Projects

Engineer responsible for performing subsurface investigations, preparation of geotechnical reports, coordinating laboratory analysis programs, providing recommendations for lateral earth pressures, bearing capacities, modulus of subgrade reactions, settlements, and construction specifications for multi-story structures. Foundations considered have included steel H-piles, auger-cast piles, drilled piers, spread footings, and mat foundations.

- WVARNG Readiness Center, Summersville, West Virginia
- Residence Inn, Morgantown, West Virginia
- Suncrest Executive Office Plaza and Parking Garage, Morgantown, West Virginia
- WVU Luxury Box for Mountaineer Field, Morgantown, West Virginia
- WVU Research Park, Morgantown, West Virginia
- View at the Park Apartment Complex, Morgantown, West Virginia
- Three 3-story Apartment Complex, Morgantown, West Virginia
- Baptist Church, Morgantown, West Virginia
- Marriott Hotel, Morgantown, West Virginia
- Bucks Tavern, Morgantown, West Virginia
- Stouts Run United Methodist Church Addition, Parkersburg, West Virginia
- Fairfield Inn Hotel, Fairmont, West Virginia
- Wendy's Restaurant, Morgantown, West Virginia
- Sunoco Service Station, Robinson Township, Pennsylvania

- Numerous Residential Geotechnical Projects, Morgantown and Charleston, West Virginia
- St. Stephens Baptist Church, Morgantown, West Virginia
- Islamic Center, South Charleston, West Virginia
- Oak Hill Public Library, Oak Hill, Ohio
- Westside High School, Oceana, West Virginia

I.A. Construction, Harrisburg, Pennsylvania

Responsible for the design and construction recommendations for a braced temporary soldier beam and lagging retaining wall for the construction of a sewer line to be located 30 feet below the existing ground surface.

The Winter Construction Company, Tampa, Florida

Performed monitoring and analysis of pile load test on auger cast piles for a proposed 5-story hotel in Huntington, West Virginia.

Geotechnical Projects for Department of Transportation

Involved with the layout of the boring plan, staking borings in the field, preparation of the boring contract documents, soliciting bids, awarding drilling contracts, monitoring of drilling operations, coordination of laboratory testing programs, preparation of boring diagrams, and preparation of subsurface exploration report foundation recommendations and slope reviews for various West Virginia Department of Transportation Projects:

- Platinum Drive Urban Connector, Bridgeport, West Virginia
- Segment of WV State Route 2, Moundsville, West Virginia
- Segment of National Road, Wheeling, West Virginia
- Segment of North Bridgeport Bypass, Bridgeport, West Virginia
- Corridor H, Section IV, Davis, West Virginia
- Sulphur Springs Bridge, Hundred, West Virginia
- Dry Run Interchange, Martinsburg, West Virginia
- Interstate 81 Hainesville, Bessemer & Tuscorora Creek Bridges, Martinsburg, West Virginia

Morgantown Utility Board, Morgantown, West Virginia

Project Manager responsible for the field surveying and development of site plans for a storm water improvement project located in the Poponoe and Burroughs Run drainage basins. The project included seven detention basins and several culvert replacements.

Beedir Construction Company, Clarksburg, West Virginia

Engineer responsible for performing a value engineering design for the foundation for an interstate bridge near Clarksburg, West Virginia. The structure included a previously designed H-pile foundation system that was modified to a drilled shaft foundation system to the close proximity of an adjacent roadway and underground utilities. This project also included a structural evaluation for the proposed construction sequencing arrangement and the structural evaluation of the installed drilled shaft foundation after a previously installed cross hole logging system indicated the potential for questionable quality concrete.



VICTOR M. DAWSON
POTESTA Survey Manager

PROFESSIONAL REGISTRATIONS

Registered Land Surveyor, North
Carolina, South Carolina, West Virginia

EDUCATIONAL BACKGROUND

A. S. Land Surveying, Glenville State College, Glenville, West Virginia

PROFESSIONAL AFFILIATIONS

North Carolina Society of Land Surveyors
South Carolina Society of Land Surveyors
West Virginia Association of Land Surveyors
American Congress on Surveying and Mapping
West Virginia Association of Land Surveyors, Greater Kanawha Valley Chapter, President, 2003
West Virginia Society of Professional Surveyors, 2005-2006

PROFESSIONAL EXPERIENCE

Military

- Seymour Johnson Air Force Base, United States Air Force, Goldsboro, North Carolina. Crew Chief.
- St. George Harbor, U.S. Corps of Engineers, St. George Island, Alaska. Contractor Quality Control Representative.
- Camp Butner, United States Army, Durham, North Carolina. Crew Chief.

Office, Business and Industrial

- National Lumber Plant Site, Roane County, West Virginia. Work included boundary and topographic survey, construction stakeout for plant site. Crew Chief/Survey Supervisor.
- Buckskin Council Boy Scout Camp, Boy Scouts of America, Pocahontas County, West Virginia. Work included topographic survey and construction stakeout for new water and sewer system. Survey Supervisor.
- Hampton-Clarke, Philips Lighting Company, Fairmont, West Virginia. Work included boundary and topographic survey, construction stakeout for cullet pile of hazardous waste site. Crew Chief/Survey Supervisor.
- BIDCO, Kanawha County, West Virginia. Work included boundary and topographic survey of several parcels in the development, also stakeout of spec building and parking lots.
- Bojangles, Sam Furr Road, Charlotte, North Carolina. Crew Chief/Project Manager.
- Lowe's of Pineville, Pineville, North Carolina. Crew Chief/Project Manager.
- Firestone Fibers and Textiles, Kings Mountain, North Carolina. Crew Chief/Project Manager.
- Rural Hills, Mecklenburg County, North Carolina. Crew Chief/Project Manager.
- Huntersville Business Park, Huntersville, North Carolina. Crew Chief/Project Manager.
- TransWest Office Building, Charlotte, North Carolina. Crew Chief.
- Chatham Properties, Charlotte, North Carolina. Crew Chief/Project Manager.
- WTVI Transmitter Tower, Charlotte, North Carolina. Crew Chief/Project Manager.
- Greenbrier Business Park, Charlotte, North Carolina. Crew Chief/Project Manager.

Utilities

- Cogentrix Energy, Cogentrix, Marshall County, West Virginia. Work included GPS control survey of project area, boundary survey of 292 acres, topographic survey of 177 acres for site construction, courthouse research. Surveying Supervisor.
- Big Sandy Peaker Plant, Constellation Power, Cabell County, West Virginia. Work included GPS control survey of project area, boundary and topographic of 42 acres, boundary and route survey for 1 mile of transmission lines, construction stakeout. Crew Chief/Surveying Supervisor.
- Paintsville Power Plant, Energy Services, Paintsville, Kentucky. Work included control and topographic survey of an 180-acre site for proposed power plant, construction stakeout. Survey Supervisor.
- Greenbrier Pipeline, Dominion, West Virginia, Virginia, and North Carolina. Work included control and preliminary route survey of a 264-mile pipeline running from Corton, West Virginia to Raleigh, North Carolina. Survey Supervisor.
- Upshur County Power Plant, Dominion, Upshur County, West Virginia. Work included control survey and construction survey of a 170-acre power plant. Survey Supervisor.
- Cellular telephone tower sites, Nextel, West Virginia, Kentucky, and Ohio. Work included courthouse research, boundary and topographic survey for 86 tower locations. Crew Chief/Survey Supervisor.
- West Virginia-American Water Company. Work included boundary survey for 180 water tank sites throughout West Virginia. Crew Chief/Survey Supervisor.

Colleges/Universities

- University of Charleston, Charleston, West Virginia. Work included boundary survey of several parcels of land for student housing and parking lot. Crew Chief/Survey Supervisor.
- Marshall University, Charleston, West Virginia. Work included boundary and location survey of research complex. Survey Supervisor.
- Marshall University, Huntington, West Virginia. Work included courthouse research, boundary and topographic survey of several city blocks for student housing and parking buildings. Crew Chief/Survey Supervisor.

Resume



Douglas R. Richardson, PE, LEED AP
President/Structural Engineer

Education

North Carolina State University, (8/87-5/89).

Masters of Science in Civil Engineering, major in structures and minor in construction.

GPA 4.0/4.0.

West Virginia University, (8/83-8/87)

Bachelors of Science in Civil Engineering.

Ranking: 1st out of approximately 450 College of Engineering graduates. GPA 3.98/4.0.

Professional Registration

Professional Engineer - WV #11699, MS #12349

Maintains active record with NCEES to facilitate prompt registration in additional states as required.

LEED Accredited Professional

Professional Affiliations

American Society of Civil Engineers

American Concrete Institute

American Institute of Architects, Professional Affiliate

Structural Engineering Institute

Timber Framers Guild

US Green Building Council





West Virginia Army National Guard Project Experience

Douglas Richardson has provided the structural engineering and design for the following projects:

- Robert C. Byrd Regional Training Institute -
Camp Dawson, WV
- Armed Forces Reserve Center - Camp Dawson, WV
- Armed Forces Reserve Center - Glen Jean, WV
- Construction & Facilities Management Office -
Charleston, WV
- Mountaineer Challenge Academy - Camp Dawson, WV
- Armed Forces Reserve Center - Elkins, WV
- Multi-Purpose Building - Camp Dawson, WV

These six facilities total over 460,000 square feet of built space, and each serves as a outstanding example of how a military structure can enhance the readiness of the units they support while also contributing to the local, state and national communities in which they are located. The structural systems utilized include steel frames, reinforced concrete and masonry, load bearing cold-formed steel studs, and long span steel joists.



3.0 Experience with Similar Projects

The following pages include descriptions of selected projects that have relevance to the proposed State Emergency Crisis Operations Center.

West Virginia ANG 130th Airlift Wing Building 107 Consolidation Study

GRW was selected by the 130th AW to provide a Consolidation Study for Building 107 (B107), the oldest hangar on the installation. Built in the 1950's, this facility (designated historic by the State Historic Preservation Office) will be renovated to house an Aero-Medical Evacuation Squadron, a new Aerial Port Facility and Deployment Processing Center, and mobility storage for the Security Forces Squadron.

GRW will be developing a phased plan for the successful relocation of these organizations into B107. Each phase is to be completed within allowable budget limits and meet required functionality and allowable space criteria, while also ensuring that the development of later phases does not impair the operational effectiveness of the initial occupants.

Floor plans will be developed for each phase as well as the final floor plan and construction cost estimate. During the study, GRW will prepare several alternative floor plan scenarios, each allowing for the project goals to be achieved, for review by the Design Working Group (DWG). It is anticipated that the initial phase will provide space for the Aero-Medical Evacuation Squadron, which is scheduled to be reassigned from the WVANG base in Martinsburg in 2012. The second phase is expected to provide for the Aerial Port/Deployment Processing operations, and the third phase, SFS storage area.

One of the challenges for this project will be to consolidate these organizations, for which a total authorized area of over 50,000 SF is to be provided, into this facility which has a footprint of approximately 40,000 SF. The current building size is to be maintained (no additions are allowed to the building footprint); therefore it is likely that the interior of the facility will be modified to provide administrative spaces on two floors. Major renovations to the building's electrical, mechanical and plumbing systems are anticipated – the UTA occupancy of the facility is expected to exceed 200.

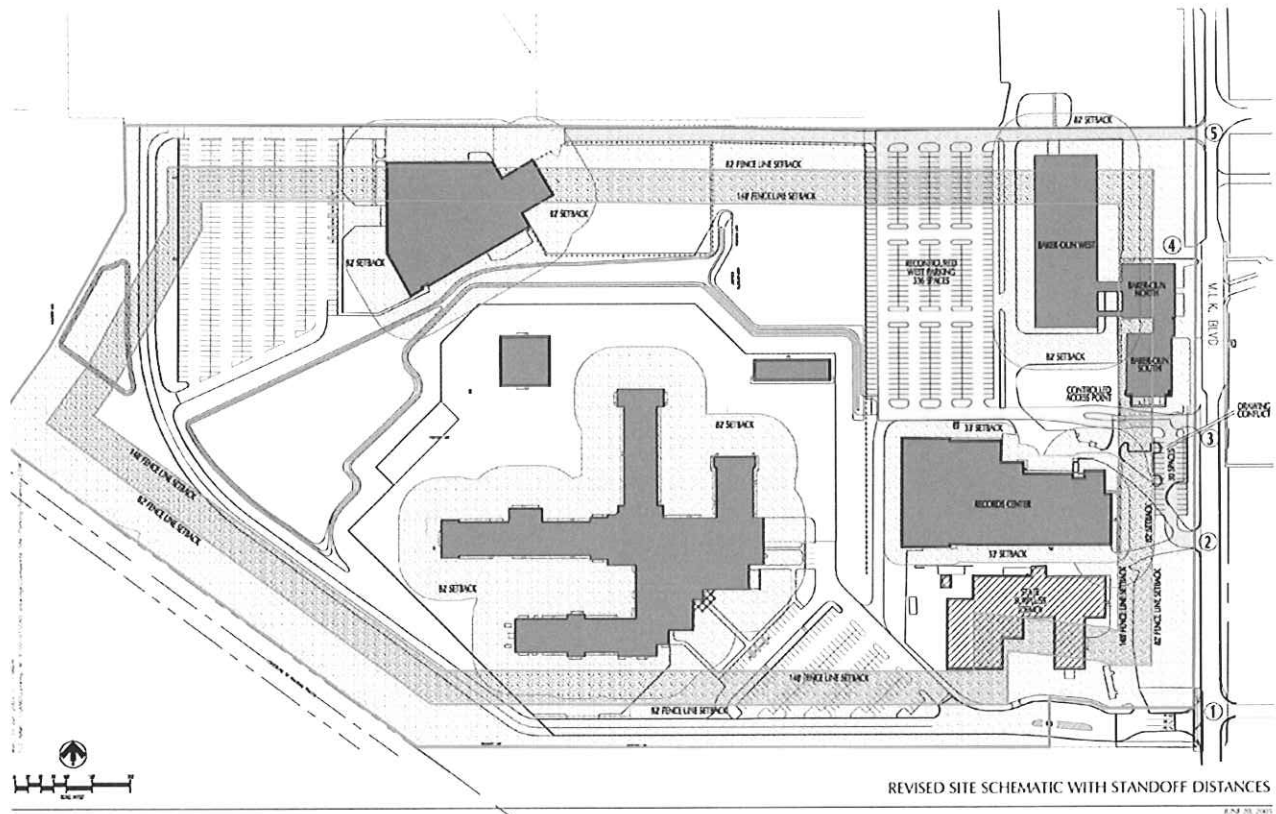
AT/FP measures and energy measures are to be incorporated in the facility, as well as current ANG guidelines and building codes, including ADA accessibility guidelines.

Client Contact: Lt. Col. John W. Dulin, Base Civil Engineer, West Virginia Air National Guard, 130th Airlift Wing, 1679 Coonskin Drive, Charleston, WV 25311-5010. Telephone: (304) 341-6270

Construction Development Plan for Conversion of Former Baker-Olin Complex to New Michigan ARNG Joint Forces Headquarters, USP&FO Office/Warehouse and Armed Forces Reserve Center Complex

The MI ARNG retained GRW to evaluate the feasibility of converting a former commercial office and warehouse complex, located on a 42-acre campus containing four buildings comprising 300,000 SF, for the consolidation of several state and federal agencies into a combined-use facility that provided adequate space, parking and security for all users.

GRW initially completed a facility assessment for this project, including a preliminary engineering feasibility study (evaluation of HVAC, electrical, life/safety and communications), site evaluation (AT/FP, parking, circulation, pavements), environmental assessment (asbestos, lead-based paint) and cost analysis (renovation, new construction and O&M costs).



A study was then completed in which a series of development options were evaluated to convert this campus for MI ARNG use. Consideration was given to the space, security and operational requirements of all potential users, which included a new Joint Force HQ facility, a USP&FO office and warehouse, a USMC Reserves unit, the Michigan Department of Military and Veterans Affairs office, and the Michigan Department of Homeland Security. A series of floor plans and site plans, with associated estimates of construction and O&M costs, were evaluated to consider alternative locations for these organizations.

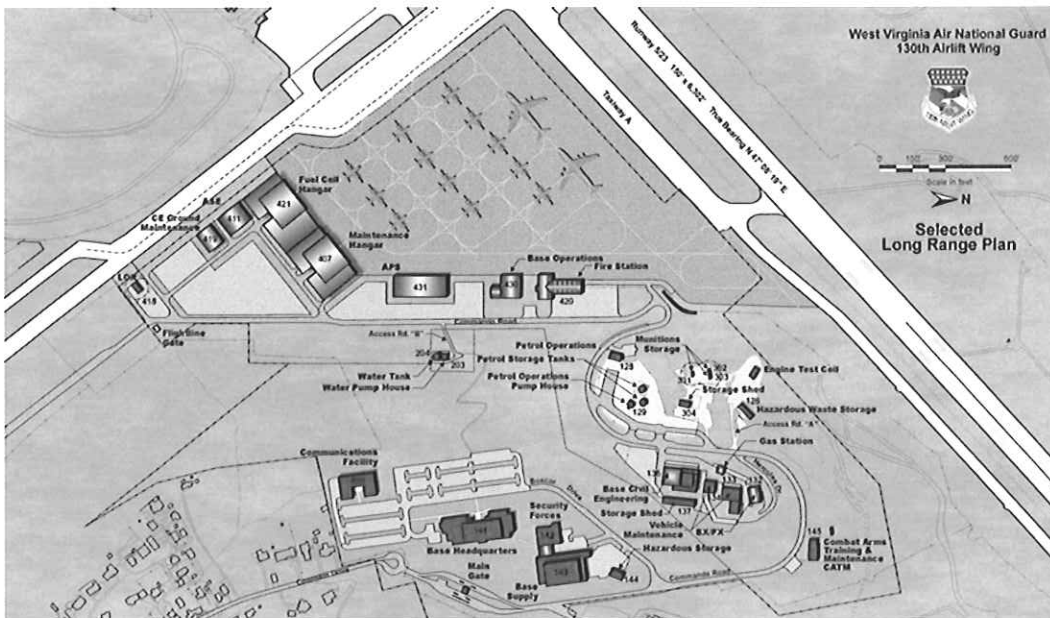
The result of this study led to the production of a Construction Development Plan depicting the selected locations for these agencies and the areas where renovations and new construction were required. The cost estimate resulting from this plan allowed the MI ARNG to develop the required DD 1391s and other documents needed to fund this project as a future Congressional Addition.

Air National Guard Planning Studies

GRW has completed a variety of planning assignments for the Air National Guard including feasibility and consolidation studies, space utilization plans, installation development plans, associated digital mapping services and common installation pictures to assess the existing physical character of ANG installations. The purpose of these planning efforts is to determine the ANG's existing needs and potential, and to plan for an orderly and comprehensive future development to accommodate the current mission, programmed mission changes and probable future missions all within the context of local and regional development plans.

GRW has completed planning projects at the following locations:

- Alabama ANG, Montgomery
- Arizona ANG, Tucson
- Arkansas ANG, Little Rock
- Delaware ANG, New Castle
- Ft. Huachuca ANG, Arizona
- Georgia ANG, Robins AFB
- Hawaii ANG, Hickam AFB
- Illinois ANG, Peoria
- Indiana ANG, Ft. Wayne
- Kansas ANG, Wichita
- Maine ANG, Bangor
- Maryland ANG, Baltimore
- Michigan ANG, Alpena
- Mississippi ANG, Jackson
- Nevada ANG, Reno
- New York ANG, Suffolk County
- North Dakota ANG, Fargo
- Rickenbacker ANG, Ohio
- Oregon ANG, Klamath Falls
- Pennsylvania ANG, Fort Indiantown Gap
- Pennsylvania ANG, Harrisburg
- Rhode Island ANG, Quonset Point
- South Carolina ANG, Columbia
- Tennessee ANG, Knoxville
- Tennessee ANG, Memphis
- Tennessee ANG, Nashville
- Utah ANG, Salt Lake City
- Washington ANG, Spokane
- Wisconsin ANG, Madison
- **West Virginia ANG, Charleston (shown below)**

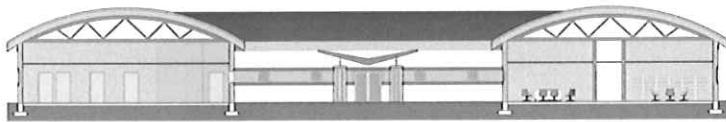
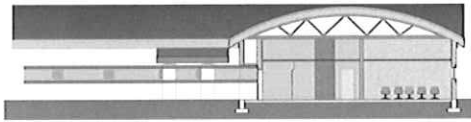


Client Contact: Ben Lawless, Chief, Engineering Division, ANG/A70, Air National Guard Readiness Center, ANG/A70, Andrews Air Force Base, Telephone: (301) 836-8085

West Virginia ANG 130th Airlift Wing Communications Facility

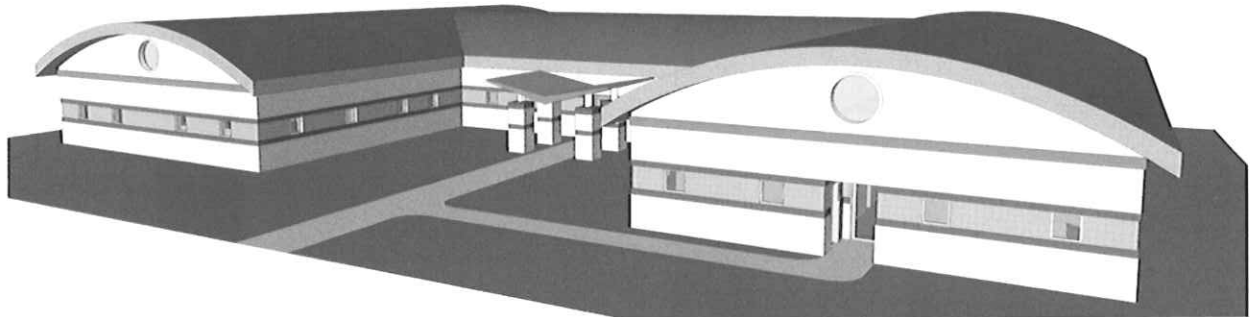
GRW provided Type A and Type B design services for a new \$3.6 million Communications Facility at Yeager Airport in Charleston, WV. **The initial program included an 8,000 SF Joint Operations Center (JOC) for use by the WV ANG and ARNG during emergencies;** however, the JOC was later eliminated from the project.

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.



This building includes space for:

- Telephone Exchange 1 (Base PBX Switching Gear). The switching center is composed of switchboard positions, electromechanical and/or electronic switching equipment, emergency power plant, terminal equipment, distributing frame, relay racks, inside cable, wiring, cable vault, Uninterruptible Power Supply (UPS), back up generator and operating appliances.
- Defense Switched Network (DSN) Equipment.
- 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 for communications records, magnetic tapes, message paper and message tape.
- 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.



- **Audio/Visual Function.** Provides space for the production, filing and presentation of audio/visual materials, graphic arts, and visual aid products used in training, conferences, briefing, and similar activities.
- **Audio/Visual Library.** Provides space for customer service, administration, audio/visual equipment storage, maintenance and training, and a previewing room.
- **Graphic Arts Facility.** Provides space for an artist or illustrator, work and production areas, copy/reproduction, composition and lettering, copy camera equipment, tools and accessories, display, master artwork, and reference materials and catalogues, as well as specialized drafting equipment, tools and accessories.

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.

"From the Communications Building to the Master Plan, GRW has shown many of the traits that we look for in an A/E Firm. They have offered us outstanding solutions. They have shown their commitment to our unit by always going above and beyond; I know that I am extremely proud to have had them on our projects." -- Comment from Lt. Col John Dulin 130th AW/CES

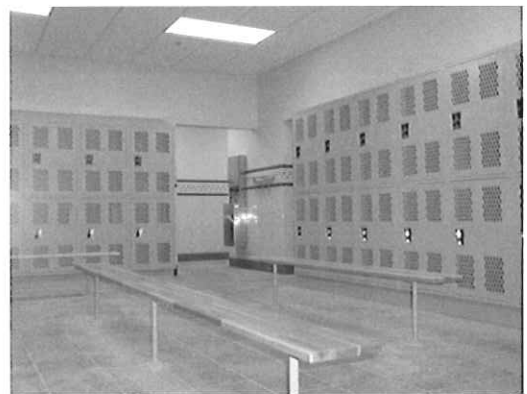
Client Contact: Lt. Col. John W. Dulin, Base Civil Engineer, West Virginia Air National Guard, 130th Airlift Wing, 1679 Coonskin Drive, Charleston, WV 25311-5010. Telephone: (304) 341-6270

Indiana ANG 122nd Fighter Wing Security Forces Operations and Training Facility



GRW was selected by the 122nd FW to provide Type A and Type C A/E services for the design-build of a new 18,494 SF Security Forces Operations and Training Facility, including a Combat Arms Training and Simulator/Combat Arms Training Maintenance (CATS/CATM) area, in Ft. Wayne, IN. This facility includes 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. The demolition of a 3,000 SF building was also included in the project.

The Security Forces Operations and Training Facility is connected to a base-wide Energy Management Control System. The Security Forces facility includes the Central Security Control (CSC) system for the entire base. The Security Forces and CATS/CATM facilities are wired for communications, security monitoring, intrusion detection systems, LAN, intercom, CCTV, and CATV. The CATS/CATM houses a Weapons Simulator for security forces training.





Under this assignment, GRW developed a detailed Project Book and concurrently completed a Type A1 Conceptual Design submittal. The conceptual design included design analysis, building descriptions and drawings. The conceptual design provided details of all rooms, along with their functional requirements in accordance with all applicable codes, criteria and ANG design standards. A preliminary construction cost estimate was also prepared. The objective of this effort was to ensure that a low life cycle cost, low maintenance, mission compliant facility could be built within the Maximum Construction Cost (MCC) limitation of \$3.86 million based on

FY07 construction, excluding contingencies.

The design-build Bridging Documents were prepared so that the actual construction cost (Base Amount plus Additive Bid Items), will not exceed the MCC. The construction cost estimate separately identified the Base Bid Amount and each ABI. Each ABI was described on the drawings and listed in priority order so that they could be added to the project if the total cost remained within the MCC.

"It is with pleasure that I highly recommend GRW. Your construction documents are always of the highest quality and you have met our budget and schedule needs, even at times when it has been necessary to make adjustments to our own funding and schedule requirements. Whether you have been tasked with planning services, design or construction administration, GRW has exceeded our expectations by continuously providing the expertise and guidance we have needed."

Comment from James W. Starnes, LT COL, INANG, Base Civil Engineer.

Client Contact: Lt Col James Starnes, Base Civil Engineer, Indiana Air National Guard, 122nd Fighter Wing, Fort Wayne, IN 46809. Telephone: (260) 478-3252

West Virginia ANG 130th Airlift Wing Squadron Operations Facility Repair

GRW is providing multi-discipline design and construction administration services for renovations and energy-efficient improvements to the 25,765 SF Squadron Operations Facility at the WV Air National Guard Base at Yeager Field, Charleston, WV. Constructed in 1977, this facility was built as a three-story, 18,265 SF building, and housed the Base Operations and Dining Area. In 1990, a two-story addition of 7,500 SF was constructed on the east end of the facility to increase space needed for airfield operations. The Dining Area was later relocated to another facility and its space was renovated for a Fitness Center and an Intelligence/Tactics unit. Other renovations and relocations made within the facility over the years have resulted in a building that now inadequately serves its current users, which include Administration and Operations (Category Code 141-753), Base Operations (141-453), Command Post (141-461), Life Support and Fitness Center (740-674).

The facility size meets the current ANG facility requirements (ANGH 32-1084) but the user spaces are not efficiently arranged, the HVAC and electrical systems are inadequate, roofs are in need of repair and the fire protection system does not comply with current codes. All of these factors contribute to a degradation of mission completion.

GRW began the project with a Charrette to review the facility requirements with a Design Working Group, consisting of user groups and other key stakeholders, to confirm the authorized functional space requirements of each activity in the facility, to develop alternative floor plans that overcome the current

deficiencies, and to validate the Government's construction cost estimate. A Concept Proposal Report and a Concept Development Report were prepared following the Charrette.

After considering the alternative floor plans, a plan was selected that meets the goals of the project while also achieving a more energy-efficient, sustainable facility. The final design will allow for the efficient use of space for Squadron personnel to perform their operations, maintenance and training activities in a modern, comfortable environment that is conducive to effective mission execution.

This project is being designed to achieve the USGBC **LEED Certified** rating and to meet other the requirements of the ANG Sustainable Design Policy. This facility will also meet the AT/FP requirements of UFC 4-010-01, and other applicable current ANG requirements and building codes including ADA accessibility guidelines.

"From the Communications Building to the Master Plan, GRW has shown many of the traits that we look for in an A/E Firm. They have offered us outstanding solutions. They have shown their commitment to our unit by always going above and beyond; I know that I am extremely proud to have had them on our projects."

Comment from Lt. Col John Dulin 130th AW/CES

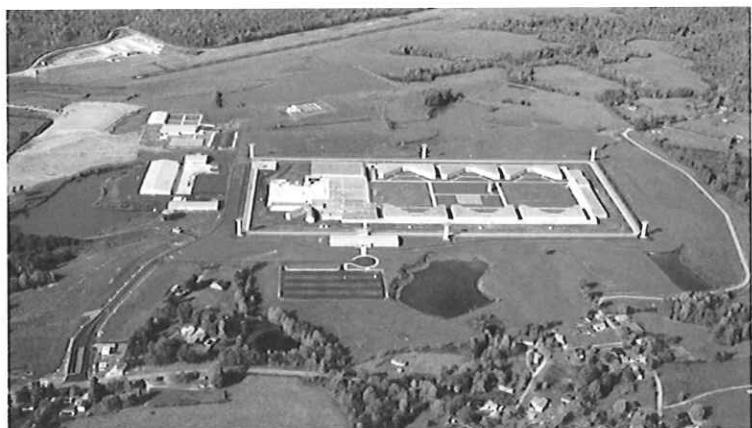
Client Contact: Lt. Col. John W. Dulin, Base Civil Engineer, West Virginia Air National Guard, 130th Airlift Wing, 1679 Coonskin Drive, Charleston, WV 25311-5010. Telephone: (304) 341-6270

McCreary U.S. Penitentiary and Satellite Camp

GRW led the design team, in conjunction with the contractor, for the design-build of this new \$124,000,000 prison in McCreary County, KY. Situated on a 430-acre site, the 533,000 SF prison complex includes 21 separate buildings. The main facility is an ADA-compliant maximum-security penitentiary housing 960 general population inmates and 120 segregation unit inmates. The campus plan places the six, 2-story housing units, and program and multipurpose functions in a rectangular campus layout enclosing a centralized soccer, softball and basketball field/court area.

A summary of the prison's components include:

- Six two-story dormitory buildings
- One two-story segregation unit
- Administrative building
- Medical services building
- Recreational building
- Industrial/vocational buildings
- Academic educational buildings
- Multipurpose building
- Food service (kitchen/dining) building
- Personal services building (canteen, barber, laundry)





- General storage warehouse
- Central utilities plant
- Vehicle maintenance building
- Physical and electronic security systems
- Utilities
- Minimum-security camp for 128 inmates

Included within the engineering responsibilities were fire alarm,

perimeter security, closed circuit television, telephone, door control and monitoring, paging, intercom, inmate duress alarms, inmate telephone system, structured data cabling systems, control panels, consoles, and fiber optic cable distribution systems. These systems were integrated into a functional security management and control system.

The project was divided into four design packages with interim schedules. All design packages met project deadlines, and the project was completed 15 days ahead of schedule.

Merit Award

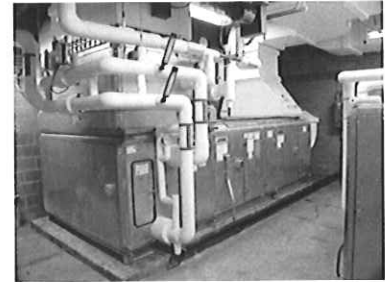
- Design-Build Institute of America

Marvin M. Black Partnering Award

- Associated General Contracts of America

Engineering Excellence Honor Award

- American Council of Engineering Companies of Kentucky



Client Contact: Gary Smith, Owner, Federal Bureau of Prisons, 500 First Street, NW, Washington, DC 20534. Telephone: (202) 616-6167

Del Rio Police Station



This project includes the site selection, needs assessment, design and construction documents for the city's new police station. The facility includes a 27,000 SF police station with a detention area, and a 7,000 SF evidence building. The building will use structural steel framing along with load bearing masonry and incorporate traditional local materials as well as modern elements. As well as being designed for future expansion, the building will use energy efficient materials and equipment suited for the area. Security systems for the project include an intercom system, multiple CCTV/DVR systems, intrusion detection systems and access control systems.

Client Contact: Bob Parker, City of Del Rio, TX, 109 W. Broadway, Del Rio, TX 78840. Telephone: (830) 774-8525

West Virginia ANG 130th Airlift Wing Communications Duct

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.

The base's current communications system uses a combination of overhead and buried cabling to extend communications throughout the base. This system is not looped and any disruption causes the base, or portions thereof, to be without necessary communications. Current overhead lines are overloaded and in many places the support poles are starting to fail. Construction of the new Communication Facility will require the communication system to be rerouted. If the proposed project is not provided, the Communication Squadron will continue to use an antiquated communications system to support the base. Future requirements in computing and communications will not be met. The security of information and the need to assure that all personnel are informed will be severely impacted.

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.

Client Contact: Lt. Col. John W. Dulin, Base Civil Engineer, West Virginia Air National Guard, 130th Airlift Wing, 1679 Coonskin Drive, Charleston, WV 25311-5010. Telephone: (304) 341-6270

Ohio ARNG Joint Armed Forces Reserve Center and Field Maintenance Shop Complex

GRW provided full-discipline A/E services for planning, design and construction of a new \$14 million **LEED Silver** 85,865 SF Joint Armed Forces Reserve Center (AFRC) and Field Maintenance Shop (FMS) for the OH 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 Air National Guard. Two unheated storage facilities are also included. Prior to design, the GRW Team completed a Project Planning Document Charrette (PPDC) for this project.



The AFRC is a 60,902 SF facility. It includes the following functional spaces:

- Administrative areas: Private offices, administrative common spaces, recruiting office, family support office
- Education spaces: Classrooms, COMSEC training, library and training center, distance learning, weapons simulator, training aid storage area, audio/visual area
- Assembly hall with fully functional kitchen and chair and table storage
- Storage areas: Heated unit storage rooms, facility maintenance, arms vault, unheated storage building



The 24,963 SF FMS includes:

- Administration area: Private shop offices
- Educational spaces: Classrooms and a library
- Storage spaces: Tools and parts storage, battery room, bulk POL storage, and lubrication system storage
- Flammable material storage and controlled waste facilities
- Work bays: 10 drive-through bays (6 for ARNG, 4 for USAR)



The AFRC/FMS complex includes:

- 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 throughout for 38% (AFRC) and 15% (FMS) energy reduction over ASHRAE 90.1 baseline figures
- Energy submetering connected to building management system (DDC)
- Geothermal system for heating and cooling of the facilities
- Military and POV parking, wash platform, loading dock, access roads and ramps
- Site AT/FP measures, security lighting, utilities and landscaping

Electrical design for the facility included a 1,000 amp, 480Y/277 volt main service entrance. An exterior, padmounted 750 KW generator with weatherproof sound enclosure is used for emergency power backup. The diesel unit has a base fuel tank and 1,000 amp automatic transfer switch.

This project had a MCC of \$23 million. Using innovative design methods and alternative construction materials, GRW was able to optimize this project so that it was bid in September 2008 at \$14 million.

"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, CFMO, Ohio Army National Guard, 2825 W. Dublin-Granville Road, IMR-DP, Columbus, OH 43235-2788. Telephone: (614) 336-7413

Kentucky ARNG Joint Armed Forces Reserve Center and Field Maintenance Shop Complex, Bluegrass Army Depot



GRW served as the “Design Criteria Consultant” to the KY ARNG for the design-build of a new \$18.5 million Armed Forces Reserve Center (AFRC) and Field Maintenance Shop (FMS). This complex is designed to meet the **LEED Silver** sustainable design rating. The services provided by GRW included RFQ and RFP development, assistance in short-listing and final selection of the design-build team, construction administration and commissioning of the new facilities. These facilities serve units from the KY ARNG and US Army Reserves. Two unheated storage facilities (4800 SF and 2600 SF) are also included.

The AFRC is a 63,250 SF facility. It includes the following functional spaces:

- Administrative areas: Private offices, administrative common spaces, recruiting office, family support office
- Education spaces: Classrooms, COMSEC training, library and training center, distance learning, weapons simulator, training aid storage area, audio/visual area
- Assembly hall with fully functional kitchen and chair and table storage
- Storage areas: Heated unit storage rooms, facility maintenance, arms vault, unheated storage building
- Building operating spaces and support spaces

The 31,725 SF FMS includes:

- Administration area: Private shop offices
- Educational spaces: Classrooms and a library





- Storage spaces: Tools and parts storage, battery room, bulk POL storage, and lubrication system storage
- Building operating spaces and support spaces, unheated storage building
- Workbays: 12 vehicle workbays

The AFRC/FMS complex includes the following features:

- Military and POV parking, wash platform, loading dock, access roads and ramps
- Flammable material storage and controlled waste facilities
- Site AT/FP measures, security lighting, utilities and landscaping
- Energy management and control system, intrusion detection system, mass notification system

"You have provided us with outstanding service whenever we have called on you to respond to our needs. Your architects, engineers and other staff members are to be commended for their high level of expertise and professionalism. I will be pleased to recommend your firm to other states that are in the need of a design team for ARNG facilities."

-- LTC Brian S. Demers, AIA, USP&FO, Kentucky ARNG

Client Contact: LTC Steve King, CFMO, Kentucky Army National Guard, Boone National Guard Center, 100 Minuteman Parkway, Frankfort, KY 40601. Telephone: (502) 607-1874

Indiana ARNG 76th Brigade Combat Team Readiness Center

GRW provided full-discipline A/E services for planning and design of 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. This Readiness Center includes the following functional spaces:

- Administrative areas: Private offices, administrative common spaces,
- Education 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
- Storage areas: 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

This facility also includes the following features:

- 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, intrusion detection system, mass notification system
- Emergency power generator
- Stormwater bio-retention pond



Client Contact: COL (ret) Jack Noel, Indiana Army National Guard, 2002 South Holt Road, Indianapolis, IN 46241. Telephone: (317) 247-3106

Texas ANG 136th Airlift Wing Security Forces Squadron Facility

GRW provided full architectural and engineering services for a \$4.5 million 17,400 square foot 2-story addition to the base's Wing Headquarters Building to house personnel and equipment for the unit's Security Forces Squadron (SFS). These services were completed to develop the conceptual design and bridging documents for this Design/Build project at NAS JRB Fort Worth (Carswell Field).

This facility includes command, control and administrative office spaces, a weapons simulator, an arms vault, classrooms, weapons and equipment storage and maintenance areas, locker rooms and restrooms, a fitness room, mobility equipment storage and utility vehicle storage.

GRW completed an initial programming Charrette, a Concept Proposal Report and a Concept Development Report to prepare the Bridging Documents for the Design/Build RFP. Topographic surveys, geotechnical investigations and geothermal tests were completed to develop a site-specific RFP. New utility systems (electrical, natural gas, water, sanitary sewer, storm sewer, communications) were provided with connection to base's DDC system to monitor and control energy utilization.

The facility was designed to meet the USGBC **LEED Silver** sustainable design criteria and EPA's 2005 energy efficiency standards. This facility includes applicable Anti-terrorism/Force Protection measures, and was designed to adhere to the base's architectural, fire protection and communications standards.

GRW is providing construction administration services as the new facility is being built.

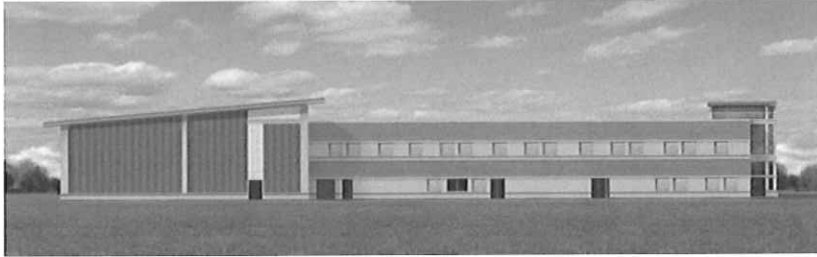
"It is with great pleasure that I recommend GRW. Their technical experience and professionalism have provided superior design documents, exceeding my expectations. The Design/Build Bridging Documents that GRW developed for the construction of a LEED Certified Silver Air Force Security Forces Training Facility is one of the best that I have ever seen. The level of detail and thoroughness of the documents allowed me to successfully award within the program budget and schedule."

-- Major Kevin A. McKinney, Base Civil Engineer, TX ANG

Client Contact: Major Kevin McKinney, Base Civil Engineer, Texas Air National Guard, 136th Airlift Wing, NAS JRB, 100 Hensley Avenue, Bldg. 1671, Fort Worth, TX 76127-1671. Telephone: (817) 852-3395



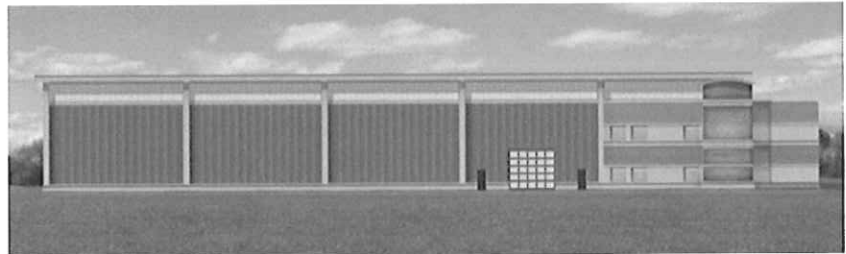
Kentucky ANG 123rd Airlift Wing Contingency Response Group Facility



GRW is designing a 54,400 SF addition and 3,000 SF of modifications to the Wing Headquarters Building to house personnel and equipment for the 123rd Airlift Wing Contingency Response Group (CRG) at Standiford Field in Louisville, KY. The 123rd AW

is the second Air National Guard unit of its kind in the nation to receive the CRG mission. The CRG is an "airbase in a box" and can mobilize to provide everything necessary to open a runway, load and unload aircraft, provide security, housing and all the necessities to run an airfield in the event of a natural disaster in the US or a deployment to a combat theater.

GRW led a Charrette to review the facility requirements with all user groups and other key stakeholders to confirm the authorized functional space requirements of all activities in the facility, to develop



alternative floor and site plans that satisfy those space needs, and to validate the government's construction cost estimate. A Concept Proposal Report and a Concept Development Report were prepared following the Charrette. Final Design is being completed by GRW in the next phase of the project.

The selected alternative is a masonry and standing seam roof addition which includes approximately 24,600 SF of administrative, food service and training space, a 24,500 SF storage area for 200 tons of mobility equipment and a 2,300 SF dining facility addition. The project also includes approximately 3,000 SF of renovation to the existing Services Flight and Security Forces Squadron area. The facility is being designed to meet the USGBC **LEED Silver** sustainable design criteria, EPA 2005 energy efficiency standards and EO 13423. This facility will include applicable AT/FP measures, and will be designed to adhere to the base's architectural, fire protection and communications standards.

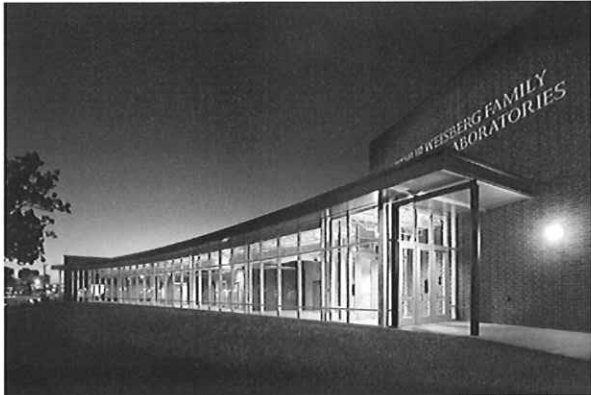
A critical feature of the design involved phasing the construction in order to minimize disruptions of ongoing functions in the Wing HQ Building; provide flexibility for the relocation of CRG personnel and equipment from existing facilities; and match construction funds which were appropriated in two separate fiscal years.

"Thank you for all the support on our most recent projects: the Installation Development Plan and the Contingency Response Group Facility. Your staff and subconsultants continue to go the extra mile providing collaborative thought during decision making periods, expertise and guidance, and accurate drawings and documents. GRW has exceeded our expectations in producing high quality, on-time and cost-effective products."

-- Lt Col Phillip R. Howard, Base Civil Engineer, KY ANG

Client Contact: Lt Col Phillip Howard, Base Civil Engineer, Kentucky Air National Guard, 123rd Airlift Wing, 1101 Grade Lane, Louisville, KY 40213. Telephone: (502) 413-4461

Marshall University Engineering Laboratory



GRW provided architectural/engineering services to Marshall University for a new Engineering Laboratory Building on their main campus in Huntington, WV. This 16,000 SF facility houses materials, soils, hydraulics, structural, and environmental laboratory space, as well as classroom space and faculty offices. A building-wide access control system was provided to monitor usage and control entry.

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: Ron May, Manager of Project Operations, Marshall University, One John Marshall Drive, Huntington, WV 25755. Telephone: (304) 696-6415



Cumberland County, Pennsylvania

Services Provided: Project Management, Facility Transitioning Planning and Consulting Services

Client Contact: Ted Wise, Public Safety Director, Cumberland County
1101 Claremont Rd
Carlisle, PA 17013
717-240-6400



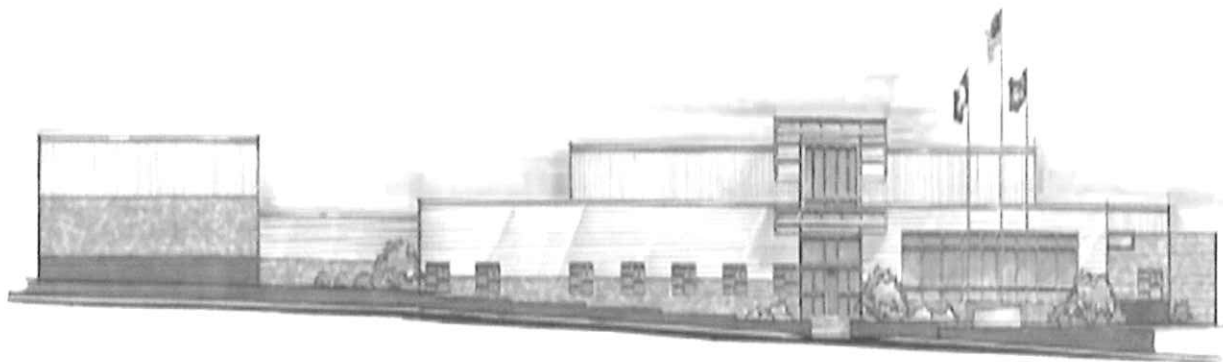
Project Dates: June 2010 to Present

MissionCriticalPartners

CHALLENGE: Cumberland County has purchased professional services for 9-1-1 project management, facility transition planning and consulting services. Senior Project Management is working with vendors and suppliers to keep the project on track, meeting all deadlines and moving into their new facility upon completion. Tasks include scheduling meetings, establishing multiple RFPs, scheduling coordination, installation, training, acceptance testing and commissioning of all systems.

SOLUTION: Mission Critical Partners, Inc. (MCP) used subject matter experts in Project Management to deliver on all contracted requirements. Mission Critical Partners created a Project Analysis Status Tool that serves as the one-stop shop for the location of meeting minutes, scheduled meetings, action item tracking and schedule coordination.

KEY RESULT: MCP assisting Cumberland County's smooth transition into a new fully operational facility upon completion in the third quarter of 2011.



Department of Homeland Security (DHS) / FEMA

Services Provided: Communication System Planning, Design and Implementation

Client Contact: Russ Gates, Senior Engineer
500 C Street, SW
Washington, DC 20472
202-212-2196



Project Dates: May 2009 to Present

MissionCriticalPartners

CHALLENGE: DHS/FEMA is in charge of the planning, design and implementation of an integrated emergency communication system to support the joint FEMA/Department of Defense Chemical Stockpile Emergency Preparedness Program (CSEPP). FEMA has been mandated by Congress to plan, design and implement a program that provides maximum protection to the public who are located in the emergency planning zones surrounding the eight U.S. chemical weapons depot sites located in the United States. As part of this program, integrated emergency communication systems must be planned, designed and implemented.

SOLUTION: As a subconsultant, MCP provides communication system planning, design and implementation oversight in support of the CSEPP program throughout the eight U.S. chemical weapons stockpile locations. Services provided to integrate the federal, state and local emergency communication system include:

- 9-1-1 system planning and design
- Emergency operations center and 9-1-1 facility planning, design and implementation services
- Wireless voice and data communication systems to include UHF, 800MHz and IP broadband communications systems
- Public alert and notification systems to include EAS, sirens, PA systems and reverse 9-1-1 emergency notification systems
- Microwave, radio and fiber optic communication design services

KEY RESULT: MCP has been able to meet tight deadlines and provide innovative, cost-effective solutions to upgrade mission critical systems to support the FEMA CSEPP Program. FEMA has come to rely on MCP as its primary provider of mission critical communication services to support this program.

Morris County, New Jersey

Services Provided: Risk Assessment and Technology Consulting

Client Contact: Ed McDemus, Business Development Manager
292 Lafayette Street
Newark, NJ 07105
908-722-2300

Project Dates: September 2010 to Present



MissionCriticalPartners

CHALLENGE: Morris County has the need to expand their Emergency Management Operations Center and their 911 Center. The County has completed studies on where to locate a new facility. Morris County has decided to build onto their existing location and renovate some existing space that will provide them with a state-of-the-art facility for not only the above offices but will include the Sheriff's Office Criminal Laboratory. The County wishes to transition viable technology to the new facility, without any loss of service to the citizens and public safety responders.

SOLUTION: USA Architects has partnered with Mission Critical Partners to provide experienced and knowledgeable staff that have planned and managed technology upgrades as part of a new facility/renovation, to be a part of the team. Senior Project Management staff is working as part of the team to ensure sufficient space is allotted for the technology equipment, to include power and cooling needs, throughout the planning, procurement and implementation phases. Tasks include conducting meetings to discuss current technology in use, incorporating the existing equipment that the County wishes to transition to the new space, as well as planning for future needs of the County and facility. Future work will be working with the team and the County on defining technology procurements, facility transition planning and consulting services.

"MCP staff has become part of the overall team for Morris County, and has provided expert knowledge to the County on this project."

—Sid McConahy, ENP, PMP Sr. Project
Manager, Mission Critical Partners

KEY RESULT: MCP continues to work as part of the team and has come to a final design spacing plan that includes technology space requirements, as well as power and cooling requirements.

Pennsylvania Emergency Management Agency (PEMA)

Services Provided: Emergency Operations Center Facility Technology Integration Services

Client Contact: Dave Schrader, Architect
SCHRADERGROUP/AEComm Joint Venture Architecture
161 Leverington St., Suite 105
Philadelphia, PA 19127
(215) 482-7440



MissionCriticalPartners

Project Dates: April 2010 to May 2013

CHALLENGE: Mission Critical Partners is a subconsultant for the technology design and move planning related to this new statewide 97,000 sq. ft. EOC facility. The Commonwealth of Pennsylvania has selected this team to develop the facility program, perform facility and systems design and provide oversight of construction and technology vendors. In addition, the Commonwealth has identified a very stringent schedule for construction and transition to the new headquarters. Once construction is completed, the technology in the EOC would be upgraded prior to occupation of the new center. Technology components of the new site are many and include support of the following elements:

- Pennsylvania Emergency Management Agency (PEMA) headquarters
- Offices of Homeland Security, the state fire commissioner, and the administration's radio project
- Joint Information Center (JIC)
- Senior Leader Situation Room
- Pennsylvania Department of Transportation Area Command
- Pennsylvania State Police Activation Watch Center
- Bureau of Radiation Protection Watch Center
- All Hazards Fusion Center with a sensitive compartmented information facility (SCIF)

"MCP was selected for their ability to integrate technologies into the complex building design, construction and transition process."

—David Schrader, Managing Partner

SOLUTION:

- Develop the list of mission-critical technology-sensitive systems in coordination with PEMA staff
- Hold final decisions on mission critical technology selection until as far along in the building construction process as possible to assure the most current applicable technologies are considered in decision-making
- Coordinate technology with the master project construction schedule
- Integrate technology considerations and requirements into the building design specifications
- Integrate technology systems across the multiple tenant agencies in the building

KEY RESULT: Create a reliable, efficient, flexible, state-of-the-art and secure facility that houses the State Emergency Management Agency, State Fire Marshall, Office of Homeland Security and State Emergency Operations Center to better coordinate the planning, response and recovery to manmade and natural disasters.

West Texas Regional Consortium

Services Provided: Next Generation 9-1-1 Master Plan

Client Contact: Greg Green, Executive Director
Potter-Randall Emergency Communication District
405 SW 8th Avenue
Amarillo, TX 79101
806-374-9800



MissionCriticalPartners

Project Dates: September 2009 to Present

CHALLENGE: In the desire to begin the planning process for an emergency services IP-enabled network (ESInet) that serves and supports the West Texas region, the Panhandle Regional Planning Commission (PRPC) coordinated the creation of the West Texas Consortium. This consortium covers a land area in excess of 100,000 sq miles and includes the following organizations:

- Concho Valley Council of Governments
- Nortex Regional Planning Commission
- Panhandle Regional Planning Commission
- Permian Basin Regional Planning Commission
- Rio Grande Council of Governments
- South Plains Association of Governments
- West Central Texas Council of Governments
- Abilene—Taylor County 9-1-1 District
- El Paso County 9-1-1 District
- The Texas Panhandle Workforce Development Program
- Emergency Communications District of Ector County
- Howard County 9-1-1 Communications District
- Lubbock Emergency Communication District
- Midland Emergency Communications District
- Wichita—Wilbarger 9-1-1 District
- The Coalition of Health Services, Inc
- Potter—Randall Emergency Communications District
- The Panhandle Regional Advisory Council, Trauma Services Area A

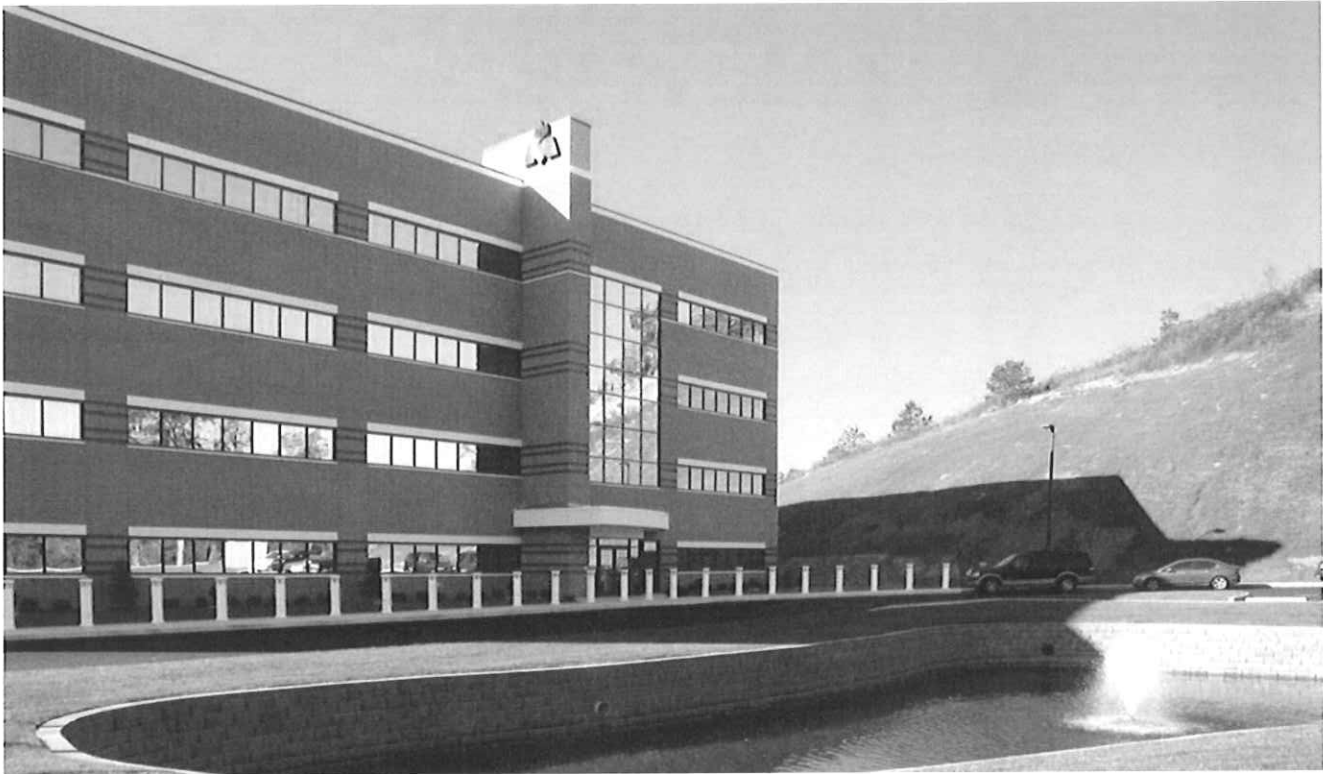
"The team at MCP exceeded my expectations in their ability to distill national, state and regional priorities into a workable framework for the advancement of NG9-1-1 for my agency and our project partners."

—Richard G. (Greg) Green, ENP,
Executive Director, Potter-Randall
Emergency Communication
District

SOLUTION: Mission Critical Partners, Inc. (MCP) was retained to assist in this planning initiative and feasibility assessment. Specifically, MCP is focusing on three areas: governance of the regional network(s), funding of and for the network(s), and potentially available network resources. In collaborating with all of these consortium members, MCP assesses needs and identifies options that pertain to governance models, equitable cost-sharing mechanisms, and network resources.

KEY RESULT: MCP has delivered a report defining a path forward for the region to develop an interoperable emergency call delivery system. The client is seeking funding and advancing the program with factual data derived from the MCP report.

Massey Coal Services Office Building West Virginia



Owner:	Massey Coal Services
Project Team:	Williamson Shriver Architects
Responsible Partner:	Gregory A. Williamson, AIA, LEED AP
Project Manager:	Eddie Bumpus, AIA, LEED AP
Structural Design:	Donald W. Beyer, PE
Project Data:	
Square Footage:	70,000
Project Cost:	\$13.6 Million
Year Occupied:	2008
Project Scope:	New Construction





West Virginia Army National Guard Project Experience

Douglas Richardson has provided the structural engineering and design for the following projects:

- Robert C. Byrd Regional Training Institute -
Camp Dawson, WV
- Armed Forces Reserve Center - Camp Dawson, WV
- Armed Forces Reserve Center - Glen Jean, WV
- Construction & Facilities Management Office -
Charleston, WV
- Mountaineer Challenge Academy - Camp Dawson, WV
- Armed Forces Reserve Center - Elkins, WV
- Multi-Purpose Building - Camp Dawson, WV

These six facilities total over 460,000 square feet of built space, and each serves as a outstanding example of how a military structure can enhance the readiness of the units they support while also contributing to the local, state and national communities in which they are located. The structural systems utilized include steel frames, reinforced concrete and masonry, load bearing cold-formed steel studs, and long span steel joists.



West Virginia Army National Guard Gallagher Tunnel Drainage and Slope Stability Project

Center for National Training Response Center, Kanawha County, West Virginia

Potesta & Associates, Inc.'s work consisted of the planning, design, and preparation of contract documents of rock removal from a cut slope at the response center, design of the drainage and fill placement for a proposed parking area, and the restoration of the projected site. The work included:

- Survey and mapping the tunnel site and surrounding hillside area.
- Analysis of alternatives and recommendation for remedying the rock falling and drainage problems.
- Design of rock removal and installation of rockfall mesh, fencing, and reinforced barrier along the existing response center roadway.
- Construction of a parking area consisting of installation of fill material and gravel of drainage control items including:
 - 42-inch Reinforced Concrete Pipe (RCP) culvert, storm water manhole and headwalls.
 - 24-inch RCP connected to an existing 24-inch CMP culvert that extended out from the West Virginia Turnpike embankment.



West Virginia Air National Guard 130th Airlift Wing Fuel Cell Hangar Charleston, West Virginia

Potesta & Associates, Inc. (POTESTA) working under contract with BBL Carlton, the construction contractor for the 130th Airlift Wing's Fuel Cell Hanger Project located at Yeager Airport prepared revisions to the site grading plan, as well as a Construction Storm Water Permit for the project. Site grading for the project required that the excavated material be hauled to two planned waste fill areas adjacent to an existing facility runway. POTESTA reviewed the site civil plans and made recommendations and alterations to the grading plans requiring additional engineering stormwater controls and best management practices required by the Construction Storm Water Section of the West Virginia Department of Environmental Protection. POTESTA prepared a stormwater management plan for the project. Additional material was also utilized to extend an existing valley fill near the WV Air National Guard's operations center which was utilized for storage and staging. POTESTA consulted with Guard personnel and construction crews related to the placement and compaction of the fill material, as well as the associated storm water control and conveyance structures adjacent to the fill. This additional fill area was also permitted through a modification to the current stormwater permit.



University of Charleston Brotherton Residence Hall Charleston, West Virginia

With the University of Charleston's first residence hall construction in over three decades, the design/build team looked to Potesta & Associates, Inc. (POTESTA) to assist with the typical site-related design associated with new building construction, as well as the most difficult siting problems.

Because the residence hall was sited on the edge of the campus abutting both residential properties and MacCorkle Avenue, the desires of the adjoining homeowners weighed heavily in the design of the vehicular and pedestrian circulation for the hall. A design team of personnel from POTESTA and the architectural firm presented several alternate schemes to meet the concerns of both the University and nearby homeowners.

After reaching consensus with these two groups, POTESTA provided assistance which resulted in receiving a favorable review of the plans by the City Planning and Engineering Departments. POTESTA prepared construction documents for the site layout, grading, storm drainage and utility extensions for this four-story structure.



4.0 Project Concepts and Approach

We recognize that each project has its own unique aspects and requirements, and we will adapt our approach to fit your requirements, schedule and needs. Ultimately, the design for this State Emergency Crisis Operations Center will satisfy your programmatic, budget, and operational requirements, and will be both functional and aesthetically pleasing.

This project is somewhat unique in that the initial phase involves a feasibility study to look at scenarios for building-out the existing Northgate property versus new construction on Coonskin Drive. GRW attended the pre-proposal meeting at the Northgate property on 6/22/11. Our initial reaction is that it would definitely be feasible to build out that building, but we agree that a full analysis is needed before making a final determination. Following an initial Criteria Review Conference (CRC) with your assigned Project Manager to confirm the scope, objectives and schedule for this project, we will proceed with the development of the feasibility study. This study will involve a review of the existing facility to determine code/seismic compliance, a condition survey, space analysis, site issues, building cost analysis, and other variables. The feasibility study will outline the pros and cons for each option and present an initial recommendation for your consideration. You will have the opportunity to review and comment on a draft version of the study before we issue the final document.

At the conclusion of the feasibility study, there will be consensus among all parties for site selection and renovation versus new construction.

Once this decision is made, GRW will move forward with scheduling and conducting a Program Planning Document Charrette (PPDC) with your PM and the facility users. This Charrette will include an analysis of the project site (including a topographic survey, a preliminary geotechnical study, an environmental review, a description of site hydrology and natural conditions, information related to utility services and a legal property description), a discussion of facility requirements (space allowances per NG Pam 415-12, functional requirements, adjacencies and spatial organization), a list of exceptions to criteria and a validation of the DD Form 1390/1391 project data (assigned personnel, space criteria) and a validation of the construction cost estimate.

Subsequent meetings and/or charettes will be held to confirm the detailed requirements for architectural finishes, electrical requirements, ventilation, communications, and other elements of all spaces within the facility. We will use this information to prepare a Basis of Design that will be used in calculating power, lighting, HVAC, fire protection and other services for the buildings. This information will also be used to confirm the final floor plan and finish schedule for the various spaces and functional areas in each building.

Through the course of the design, we will work with you to identify ways of saving O&M costs and reducing energy needs. We will also work to identify possible alternative construction materials. Some of these recommendations may reduce construction cost, reduce utility costs, or both. These recommendations will be provided for your consideration and, if accepted, incorporated into the design. The final construction documents will include Bid Options that will allow the opportunity to select items that enhance the facility while still staying within the Maximum Construction Cost approved for this project.

Since this project will involve the National Guard and multiple state agencies, and will require special communication expertise, GRW has retained the services of a specialty subconsultant, Mission Critical Partners (MCP), to assist with the unique programming and telecommunications aspects of this project. MCP will be heavily involved in the charrette process, bringing their considerable expertise into the initial programming and planning for this project. Then, as the work progresses, they will assume design responsibility for the specialized communications infrastructure for the site and facility.

The design procedures we will follow are the same as those described in Chapter 11 of NG Pam 415-5, unless otherwise directed. These procedures will include the development of a Conceptual Design, which we will summarize and deliver in a Concept Design Report. This report generally represents 10-15% of the total design effort and serves as a bridge between the PPDC Report and the development of the construction documents.

The next step will be to incorporate the review comments from the Concept Design into a Preliminary Design submittal that represents approximately the 35% design completion of the construction documents. This submittal will include site and floor plans, building elevations, a room finish schedule, and descriptive information on the utility systems, HVAC and lighting systems, and other special systems. This submittal will also include preliminary technical specifications (CSI Divisions 2-16), general requirements (Division 1), an updated construction cost estimate, and supplemental design data and information, such as narrative descriptions of the building elements, engineering calculations and code analyses.

As the work progresses, an interim 65% design submittal will be provided for your review and approval.

A 95% design submittal will be presented to include the resolution of review comments from the previous submittals, final plans and specifications, cost estimate, bidding documents (Division 0), and supporting data as described in paragraph 11-4 of NG Pam 415-5. Following review and approval of the 95% design submittal, we will prepare a 100% final approved set of plans and specifications for advertisement for bids.

Since we assume that this project will be advertised for bids through the state's Purchasing Division, the required bidding information will be prepared using the state's forms and contract documents. Plan sets can be supplied to plan rooms and other locations where potential bidders and vendors can review them.

Copies of each design submittal will be furnished as hard copies and CDs, in the number needed for each agency to review. The project schedule will include time for reviews by each agency.

GRW will provide assistance during advertising and bidding of the project by answering RFIs, preparing Addenda, and attending the pre-bid site visit and bid opening. If requested, GRW will assist in evaluating the bids and will provide a tabulation of all bids.

As the project moves into construction, GRW will provide construction administration services in accordance with your requirements. These services will include, at minimum, regular visits to the site, review of shop drawing submittals, review of contractor's pay applications, and response to contractor RFIs. If desired, GRW will work with you to identify and retain the services of a local individual to provide resident inspection services.

These design procedures are not set in stone, as GRW prides itself on being a strong project manager driven organization without a lot of bureaucratic procedures that stifle creative people. We will work with you to make sure that our design services meet the requirements of the WV National Guard and the State of West Virginia. At all times we will remain flexible to accommodate your needs. The bottom line is that GRW cares a great deal about performing repeat business with the same clients, and we can't do that if you aren't happy with the quality of our work.

5.0 Past Performance

GRW has a proven record of accomplishment of delivering quality services to our clients nationwide. We adhere to well-developed policies and procedures to ensure quality control, quality of work, compliance with performance schedules and customer satisfaction. This section describes these policies and procedures. Copies of recent Letters of Appreciation from National Guard clients are provided to illustrate their satisfaction in our performance.

Cost Control

GRW's experience with cost control for military projects began when the firm started serving the DOD in the early 1970's. Now, almost 40 years later, we prioritize this element of a project on an equal level with the quality of our work. We recognize the significance of cost control as a key measure in successfully executing projects so that our DOD clients meet their own budget and schedule requirements and projects are able to receive design and construction funds in their programmed fiscal year.

We begin cost control in the early planning stages of each project, often during the Criteria Review Conference when the scope is resolved and the fee proposal is developed. At this time our Principle-In-Charge, the selected Project Manager and key discipline leads meet with the Contracting Officer, Contracting Officer's Representative and other Design Working Group members at the installation to visit the project site, review available information, and develop an agreed-upon technical approach for the project.

This allows us to reduce design costs if, for example, recent site surveys or soils investigations negate the need for us to conclude these tasks as part of the project. Based on experience with similar projects, we also look to find ways to site-adapt facilities where possible and to re-use conceptual designs completed for similar projects.

Quality of Work

The quality of our work is best demonstrated by the recognition we receive from the engineering industry and by the numerous awards our projects have won, both on a national and state level. Our projects have received awards from the US Air Force, the US Army Corps of Engineers, the American Institute of Architects, the American Council of Engineering Companies, and the US Environmental Protection Agency. Some of these awards are listed below:

- **DBIA Award** – Kentucky ARNG Armed Forces Reserve Center and Field Maintenance Shop, Paducah, KY
- **USAF Design and Construction Awards** – GA ARNG B-1B Beddown Plan; NV ANG Master Plan; USAF Academy General Plan; and Housing Redevelopment Plan, Kadena AB, Okinawa, Japan.
- **USAF Agent and Design Excellence Award** – PACAF Award for Housing Redevelopment Plan, Kadena AB, Okinawa, Japan.
- **USAF Citation Award for Planning Studies and Design Guides** – Nevada ANG Master Plan, Reno/Tahoe IAP, NV
- **ACEC Honor Award, Associated General Contractor's Excellence in Construction Award, AGC National Partnering Award, DBIA National Award, and three other awards** – US Penitentiary and Satellite Camp for US Bureau of Prisons, McCreary County, KY.

Compliance with Performance Schedules

Schedule control also begins at the Criteria Review Conference with the Design Working Group. We confirm the critical interim milestone dates for deliverables at this meeting. We also include dates for review comment feedback and progress meetings at the site. Dates are also established for Charrettes, both at the project site and at the JFHQ or NGB if needed. This schedule is verified in the project proposal and it becomes part of the Project Award and NTP.

We then prepare a Work Breakdown Structure (WBS) that subdivides each work element into manageable units of work this allowing all Project Team members to understand how their portion of a project fits into and coordinates with all of the other work elements being completed by others on the team.

This procedure has successfully allowed GRW to meet the National Guard's schedule requirements, even if it becomes necessary to accelerate the schedule due to delays in the TO Award or NTP.

Customer Satisfaction

GRW enjoys one of the highest percentages of repeat business in the A/E industry. Our clients recognize the superior quality of our work and the commendations we receive are a testament to the staff of GRW. We are continually rated by the "Engineering News-Record" and other professional publications as one of the best A/E firms in the country. While our total revenues are not at the same level as firms with tens of thousands of employees, it has been our client's opinion that GRW's size has nothing to do with the firm's performance on their projects. Instead, it is the close, personal service provided by our staff, combined with frequent, focused communication, and attention to detail that result in the continued retention of GRW for new contracts and tasks.

This record is the result of hard work by the GRW management and staff. We accomplish these results by focusing on the following:

- Providing dedicated, experienced project personnel who are committed to meeting the challenges of providing innovative, cost-effective designs.
- Training our staff to ensure they have the most effective design tools available for use, while remaining current with our client's design criteria and the application of new building codes and other evolving standards.
- Maintaining strong and frequent lines of communication, not only among members of the design team but also with our clients' key stakeholders.
- Following up with our clients after facility occupancy, not just to see if there are any unresolved construction issues but correcting any problems and finding ways to operate and maintain facilities more economically and effectively.

These efforts have been acknowledged by GRW's many ANG and ARNG clients.

"I would like to commend you for all of the excellent engineering services GRW has rendered to the 130th Airlift Wing. From the Communications Building to the Master Plan, GRW has shown the traits we look for in an A/E firm. You have shown a commitment to our unit by always going above and beyond our expectations. I look forward to working with you in the future."

Lt Col John W. Dulin, Base Civil Engineer, 130th AW, WV ANG

"I want to express my appreciation and gratitude for the highly successful design of our Lawrence Readiness Center. The process you used was extremely productive and efficient, due to the highly professional team assembled for this project and their willingness to meet our requirements and timeline. We are anxious to continue working with GRW."

LTC Steven R. Hines, Facilities Management Officer, IN ARNG

"I am pleased to highly recommend your firm to other states that are in need of a design team for ARNG facilities. Your team has been an excellent resource to us, and your architects, engineers and other staff are to be commended for their high level of expertise and professionalism."

MAJ Brian S. Demers, AIA, Construction and Facilities Management Officer, KY ARNG

"GRW worked tirelessly with the members of the 126th ARW during the design of our Flight Line Buildings. They stepped up to the challenge of the compressed schedule, completing each design phase in a timely manner. The acceptance of 'ownership' of this project resulted in an extremely good working relationship with the 126th."

Lt Col William Mell, Base Civil Engineer, 126th AW, IL ANG, Scott AFB

"The conversion of the GA ANG from F-15's to B-1B bombers and their relocation to Robins AFB was an extremely complex undertaking, further complicated by an expedited schedule. You not only met the schedule but also provided the base with an efficient Master Plan and facilities designs that are essential to us."

Colonel Grant Smith, GA ANG

"The Fuel System Maintenance and Corrosion Control Hangar designed by GRW was the best project ever done at this base, and was the only one done within budget and on time."

Clarence Deason, Construction Manager BCE Office, KY ANG, Louisville

"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 Kubik, Contracting Officer, 130thMSC/MSG, WV ANG

The following pages include letters of appreciation written by several of our recent ARNG and ANG clients.



**DEPARTMENT OF THE AIR FORCE
130th CIVIL ENGINEER SQUADRON (AMC)
1679 COONSKIN DRIVE
CHARLESTON, WV 25311-5005**

30 September 2008

MEMORANDUM FOR Mr. Pete Johnson, Director-Military Programs, GRW Inc.

FROM: BCE

SUBJECT: Letter of Commendation

1. I would like to commend you and your company for all of the excellent engineering services that they have rendered the 130th Airlift Wing. From the Communications Building to the Master Plan, GRW has shown many of the traits that we look for in an Architectural/Engineering Firm. They have shown their patients with our never ending changes and have each time rose to the occasion and offered us outstanding solutions. They offer their engineering and personal expertise ensuring successful completion on each project. They have shown their commitment to our unit by always going above and beyond our expectation.
2. GRW and its employees should be proud of the professional services that they have given to our unit and the nation; I know that I am extremely proud to have had them on our projects. I look forward to working with you and your team in the future.

A handwritten signature in black ink, appearing to read "John W. Dulin", with a long horizontal stroke extending to the right.

JOHN W. DULIN, LtCol, WVANG
Base Civil Engineer



DEPARTMENT OF THE ARMY
HEADQUARTERS, KENTUCKY ARMY NATIONAL GUARD
BOONE NATIONAL GUARD CENTER
100 MINUTEMAN PARKWAY
FRANKFORT, KENTUCKY 40601-8188

25 May, 2007

Mr. Pete Johnson, PE
Director of Military Programs
GRW, Inc.
801 Corporate Drive
Lexington, KY 40503

RE: GRW Architectural and Engineering Services
Armed Forces Reserve Center and Field Maintenance Shop
KY ARNG, Blue Grass Army Depot, Richmond, KY

Dear Mr. Johnson:

I am pleased to write this **Letter of Recommendation** on behalf of the Kentucky Army National Guard for the excellent A/E services that GRW has provided for the development of the Design/Build documents for the Blue Grass Army Depot AFRC and FMS project.

Your firm has demonstrated excellent an understanding and knowledge of the requirements for this project and you have provided us with outstanding service whenever we have called on your firm to respond to our needs. Your design team has been an excellent resource for us, and your architects, engineers and other staff members are to be commended for their high level of expertise and professionalism. We look forward to a continuing relationship with GRW on this project and others in the future.

I will be pleased to highly recommend your firm to other states that are in need of a design team for ARNG facilities. Please do not hesitate to us me as a reference for such future assignments.

Sincerely,

A handwritten signature in black ink, appearing to read "Brian S. Demers", written over a horizontal line.

Brian S. Demers, A.I.A.
MAJ, KyARNG
Construction and Facilities Management Officer
Kentucky Army National Guard
(502) 607-1481



INDIANA
JOINT FORCES HEADQUARTERS
NATIONAL GUARD
2002 SOUTH HOLT ROAD
INDIANAPOLIS, INDIANA 46241-4839



9 October 2008

JFHQ-IN-FMO

PETER F. JOHNSON, P.E.
Director of Military Programs
GRW, Inc.
801 Corporate Drive
Lexington, KY 40503

Dear Mr. Johnson

I want to take this opportunity to express my appreciation and gratitude to you 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. There 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 of this facility.

Sincerely

Steven R. Hines
Facilities Management Officer
Indiana Army National Guard



**INDIANA AIR NATIONAL GUARD
HEADQUARTERS 122D FIGHTER WING (ACC)
FORT WAYNE INTERNATIONAL AIRPORT (IAP)
FORT WAYNE INDIANA 46809-3158**

1 September 2010

Lt Col James W. Starnes
Base Civil Engineer and Commander
122nd CES, Indiana Air National Guard
3005 Ferguson Road
Fort Wayne, IN 46809

Peter F. Johnson, PE, LEED AP
Director of Military Programs
GRW Engineers, Inc
801 Corporate Drive
Lexington, KY 40503

RE: Letter of Recommendation

Dear Mr. Johnson:

It is with pleasure that I highly recommend GRW Engineers, Inc. for A/E services. Your staff has provided, and continues to provide, exceptional service to the Indiana Air National Guard on projects such as our Security Forces Facility, our Installation Development Plan and our Aircraft Shelter project. Whether you have been tasked with planning services, design or construction administration for our projects, GRW has exceeded our expectations by continuously providing the expertise and guidance we have needed.

Your construction documents are always of the highest quality and you have met our budget and schedule needs, even at times when it has been necessary to make adjustments to our own funding and schedule requirements.

Your work has been appreciated by my staff and the leadership of the 122nd Fighter Wing. Please do not hesitate to refer future clients to me for further details. I can be reached at 260-478-3252 or james.starnes@ang.af.mil.

A handwritten signature in black ink, appearing to read "J. Starnes", written over a horizontal line.

JAMES W. STARNES, LT COL, INANG
Base Civil Engineer



DEPARTMENT OF THE AIR FORCE
123D CIVIL ENGINEER SQUADRON

27 August 2010

Lt Col Phillip R. Howard
Commander
1101 Grade Lane
Louisville, KY 40213

Mr. Pete Johnson
Director of Military Programs
GRW Inc.
801 Corporate Drive, Suite 400
Lexington KY 40503

Dear Mr. Johnson

Thank you for all the support on our most recent projects, the Installation Deployment Plan and the Contingency Response Group Facility. Your staff and sub-consultants continue to go the extra mile providing collaborative thought during decision making periods, expertise and guidance and accurate drawings and documents. GRW has exceeded our expectations in producing high quality, on time and cost-effective products for the Kentucky ANG.

We've come to expect high quality work, GRW delivered for us in the past on projects like our Fuel Cell Maintenance and Corrosion Control Hangar Facility, and many other smaller projects. Please accept my appreciation for your outstanding efforts.

Sincerely,

A handwritten signature in black ink, appearing to read "Phillip R. Howard".

PHILLIP R. HOWARD, Lt Col, KYANG
Base Civil Engineer

cc: file

6.0 Proposal Forms

This section includes the forms required by the State's Purchasing Division, as indicated in the Request for Quotation. These forms include the following:

- RFQ Form
- Purchasing Affidavit
- Addendum Acknowledgement



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

**Request for
 Quotation**

RFQ NUMBER
DEFK11031

PAGE
1

ADDRESS CORRESPONDENCE TO ATTENTION OF
**TARA LYLE
 304-558-2544**

RFQ COPY

TYPE NAME/ADDRESS HERE

GRW
 801 Corporate Drive
 Lexington, KY 40503

SHIP TO

DIV ENGINEERING & FACILITIES
 ARMORY BOARD SECTION

1707 COONSKIN DRIVE
 CHARLESTON, WV
 25311-1099 304-341-6368

DATE PRINTED	TERMS OF SALE	SHIP VIA	F.O.B.	FREIGHT TERMS
06/07/2011				

BID OPENING DATE: **07/12/2011** BID OPENING TIME **01:30PM**

LINE	QUANTITY	UOP	CAT NO	ITEM NUMBER	UNIT PRICE	AMOUNT
0001	1	JB		906-00-00-001		
<p>ARCHITECT/ENGINEERING SERVICES, PROFESSIONAL</p> <p>EXPRESSION OF INTEREST (EOI)</p> <p>THE WEST VIRGINIA PURCHASING DIVISION, FOR THE AGENCY, DIVISION OF ENGINEERING & FACILITIES, WV ARMY NATIONAL GUARD, IS SOLICITING EXPRESSIONS OF INTEREST FOR PROFESSIONAL ARCHITECTURAL ENGINEERING DESIGN SERVICES FOR THE STATE EMERGENCY CRISIS OPERATIONS CENTER IN CHARLESTON, WV, PER THE FOLLOWING BID REQUIREMENTS AND THE ATTACHED SPECIFICATIONS.</p> <p>MANDATORY PRE-BID</p> <p>A MANDATORY PRE-BID WILL BE HELD ON 06/22/2011 AT 10:00 AM AT THE NUEMEDIA BUILDING LOCATED AT LOCATION #1, FACILITY BUILD-OUT, PARCEL B, LOT 10 NORTHGATE BUSINESS PARK, CHARLESTON, WV. ALL INTERESTED PARTIES ARE REQUIRED TO ATTEND THIS MEETING. FAILURE TO ATTEND THE MANDATORY PRE-BID SHALL RESULT IN DISQUALIFICATION OF THE BID. NO ONE PERSON MAY REPRESENT MORE THAN ONE BIDDER.</p> <p>AN ATTENDANCE SHEET WILL BE MADE AVAILABLE FOR ALL POTENTIAL BIDDERS TO COMPLETE. THIS WILL SERVE AS THE OFFICIAL DOCUMENT VERIFYING ATTENDANCE AT THE MANDATORY PRE-BID. FAILURE TO PROVIDE YOUR COMPANY AND REPRESENTATIVE NAME ON THE ATTENDANCE SHEET WILL RESULT IN DISQUALIFICATION OF THE BID. THE STATE WILL NOT</p>						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

BY <i>Sharon Lyle</i>	TELEPHONE 800-432-9537	DATE 7/14/2011
TITLE Vice President	FEIN 61-0665036	ADDRESS CHANGES TO BE NOTED ABOVE

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



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

Request for Quotation

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<p>ACCEPT ANY OTHER DOCUMENTATION TO VERIFY ATTENDANCE. THE BIDDER IS RESPONSIBLE FOR ENSURING THEY HAVE COMPLETED THE INFORMATION REQUIRED ON THE ATTENDANCE SHEET. THE PURCHASING DIVISION AND THE STATE AGENCY WILL NOT ASSUME ANY RESPONSIBILITY FOR A BIDDER-S FAILURE TO COMPLETE THE PRE-BID ATTENDANCE SHEET. IN ADDITION, WE REQUEST THAT ALL POTENTIAL BIDDERS INCLUDE THEIR E-MAIL ADDRESS AND FAX NUMBER.</p> <p>ALL POTENTIAL BIDDERS ARE REQUESTED TO ARRIVE PRIOR TO THE STARTING TIME FOR THE PRE-BID. BIDDERS WHO ARRIVE LATE, BUT PRIOR TO THE DISMISSAL OF THE TECHNICAL PORTION OF THE PRE-BID WILL BE PERMITTED TO SIGN IN. BIDDERS WHO ARRIVE AFTER CONCLUSION OF THE TECHNICAL PORTION OF THE PRE-BID, BUT DURING ANY SUBSEQUENT PART OF THE PRE-BID WILL NOT BE PERMITTED TO SIGN THE ATTENDANCE SHEET.</p> <p>CANCELLATION: THE DIRECTOR OF PURCHASING RESERVES THE RIGHT TO CANCEL THIS CONTRACT IMMEDIATELY UPON WRITTEN NOTICE TO THE VENDOR IF THE COMMODITIES AND/OR SERVICES SUPPLIED ARE OF AN INFERIOR QUALITY OR DO NOT CONFORM TO THE SPECIFICATIONS OF THE BID AND CONTRACT HEREIN.</p> <p>BANKRUPTCY: IN THE EVENT THE VENDOR/CONTRACTOR FILES FOR BANKRUPTCY PROTECTION, THE STATE MAY DEEM THE CONTRACT NULL AND VOID, AND TERMINATE SUCH CONTRACT WITHOUT FURTHER ORDER.</p> <p>TECHNICAL QUESTIONS CONCERNING THIS SOLICITATION MUST BE SUBMITTED IN WRITING TO TARA LYLE VIA MAIL AT THE ADDRESS SHOWN IN THE BODY OF THIS EOJ, VIA FAX AT 304-558-4115, OR VIA EMAIL AT TARA.L.LYLE@WV.GOV.</p>						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

NAME <i>Tara Lyle</i>	TELEPHONE 800-432-9537	DATE 7/14/2011
TITLE Vice President	FEIN 61-0665036	ADDRESS CHANGES TO BE NOTED ABOVE

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



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LINE	QUANTITY	UOP	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
<p>DEADLINE FOR ALL TECHNICAL QUESTIONS IS 06/28/2011 AT THE CLOSE OF BUSINESS. ANY TECHNICAL QUESTIONS RECEIVED WILL BE ANSWERED BY FORMAL ADDENDUM ISSUED BY THE PURCHASING DIVISION AFTER THE DEADLINE HAS LAPSED.</p> <p style="text-align: center;">NOTICE</p> <p>A SIGNED BID MUST BE SUBMITTED TO:</p> <p style="text-align: center;">DEPARTMENT OF ADMINISTRATION PURCHASING DIVISION BUILDING 15 2019 WASHINGTON STREET, EAST CHARLESTON, WV 25305-0130</p> <p>THE BID SHOULD CONTAIN THIS INFORMATION ON THE FACE OF THE ENVELOPE OR THE BID MAY NOT BE CONSIDERED:</p> <p>SEALED BID</p> <p>BUYER:-----TL/32-----</p> <p>RFQ. NO.:-----DEFK11031-----</p> <p>BID OPENING DATE:-----07/12/2011-----</p> <p>BID OPENING TIME:-----1:30 PM-----</p>						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

TITLE <i>Tara Lyle</i>	TELEPHONE 800-432-9537	DATE 7/14/2011
Vice President	FAX 61-0665036	ADDRESS CHANGES TO BE NOTED ABOVE

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



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

Request for Quotation

RFQ NUMBER
DEFK11031

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ARMORY BOARD SECTION

1707 COONSKIN DRIVE
CHARLESTON, WV
25311-1099 304-341-6368

DATE PRINTED 06/07/2011	TERMS OF SALE	SHIP VIA	FOB:	FREIGHT TERMS
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BID OPENING DATE: **07/12/2011** BID OPENING TIME **01:30PM**

LINE	QUANTITY	UOP	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
<p>PLEASE PROVIDE A FAX NUMBER IN CASE IT IS NECESSARY TO CONTACT YOU REGARDING YOUR BID: (859) 223-8917</p> <hr/> <p>CONTACT PERSON (PLEASE PRINT CLEARLY): Shane Lyle, AIA, Vice President</p> <hr/> <p>Alt: Louise Godshall, Marketing Director</p>						
<p>***** THIS IS THE END OF RFQ DEFK11031 ***** TOTAL:</p>						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE <i>Shane Lyle</i>		TELEPHONE 800-432-9537	DATE 7/14/2011
TITLE Vice President	FEIN 61-0665036	ADDRESS CHANGES TO BE NOTED ABOVE	

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

RFQ No. DEFK11031

STATE OF WEST VIRGINIA
Purchasing Division

PURCHASING AFFIDAVIT

West Virginia Code §5A-3-10a states: No contract or renewal of any contract may be awarded by the state or any of its political subdivisions to any vendor or prospective vendor when the vendor or prospective vendor or a related party to the vendor or prospective vendor is a debtor and the debt owed is an amount greater than one thousand dollars in the aggregate.

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.

"Debtor" means any individual, corporation, partnership, association, limited liability company or any other form or business association owing a debt to the state or any of its political subdivisions. "Political subdivision" means any county commission; municipality; county board of education; any instrumentality established by a county or municipality; any separate corporation or instrumentality established by one or more counties or municipalities, as permitted by law; or any public body charged by law with the performance of a government function or whose jurisdiction is coextensive with one or more counties or municipalities. "Related party" means a party, whether an individual, corporation, partnership, association, limited liability company or any other form or business association or other entity whatsoever, related to any vendor by blood, marriage, ownership or contract through which the party has a relationship of ownership or other interest with the vendor so that the party will actually or by effect receive or control a portion of the benefit, profit or other consideration from performance of a vendor contract with the party receiving an amount that meets or exceeds five percent of the total contract amount.

EXCEPTION: The prohibition of this section does not apply where a vendor has contested any tax administered pursuant to chapter eleven of this 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.

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

WITNESS THE FOLLOWING SIGNATURE

Vendor's Name: GRW +

Authorized Signature: *Bruce Kyle* Date: 7/14/2011 +

State of Kentucky

County of Shelby, to-wit:

Taken, subscribed, and sworn to before me this 14 day of July, 2011.

My Commission expires July 6, 2014.

AFFIX SEAL HERE

NOTARY PUBLIC *Louise Marshall*





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

Request for Quotation

RFQ NUMBER
 DEFK11031

PAGE
 1

ADDRESS CORRESPONDENCE TO ATTENTION OF:
 TARA LYLE
 304-558-2544

RFQ COPY
 TYPE NAME/ADDRESS HERE

VENDOR

GRW
 801 Corporate Drive
 Lexington, KY 40503

SHIPTO

DIV ENGINEERING & FACILITIES
 ARMORY BOARD SECTION

1707 COONSKIN DRIVE
 CHARLESTON, WV
 25311-1099 304-341-6368

DATE PRINTED	TERMS OF SALE	SHIP VIA	FOB	FREIGHT TERMS
07/06/2011				

BID OPENING DATE: 07/21/2011 BID OPENING TIME 01:30PM

LINE	QUANTITY	UOP	CAT NO	ITEM NUMBER	UNIT PRICE	AMOUNT
ADDENDUM NO. 1						
1. QUESTIONS AND ANSWERS ARE ATTACHED. 2. TO MOVE THE BID OPENING FROM 07/12/2011 TO 07/21/2011. 3. PRE-BID SIGN-IN SHEETS ATTACHED. 4. ADDENDUM ACKNOWLEDGEMENT IS ATTACHED. THIS DOCUMENT SHOULD BE SIGNED AND RETURNED WITH YOUR BID. FAILURE TO SIGN AND RETURN MAY RESULT IN DISQUALIFICATION OF YOUR BID.						
0001	1	JB		906-00-00-001		
ARCHITECT/ENGINEERING SERVICES, PROFESSIONAL						
***** THIS IS THE END OF RFQ DEFK11031 ***** TOTAL:						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE <i>Tara Lyle</i>	TELEPHONE 800-432-9537	DATE 7/14/2011
TITLE Vice President	FEIN 61-0665036	ADDRESS CHANGES TO BE NOTED ABOVE

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

EXHIBIT 10

REQUISITION NO.: DEFK11031

ADDENDUM ACKNOWLEDGEMENT

I HEREBY ACKNOWLEDGE RECEIPT OF THE FOLLOWING CHECKED ADDENDUM(S) AND HAVE MADE THE NECESSARY REVISIONS TO MY PROPOSAL, PLANS AND/OR SPECIFICATION, ETC.

ADDENDUM NO.'S:

NO. 1

NO. 2

NO. 3

NO. 4

NO. 5

I UNDERSTAND THAT FAILURE TO CONFIRM THE RECEIPT OF THE ADDENDUM(S) MAY BE CAUSE FOR REJECTION OF BIDS. VENDOR MUST CLEARLY 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.

Sam Lyle

SIGNATURE

GRW

COMPANY

7/14/2011

DATE