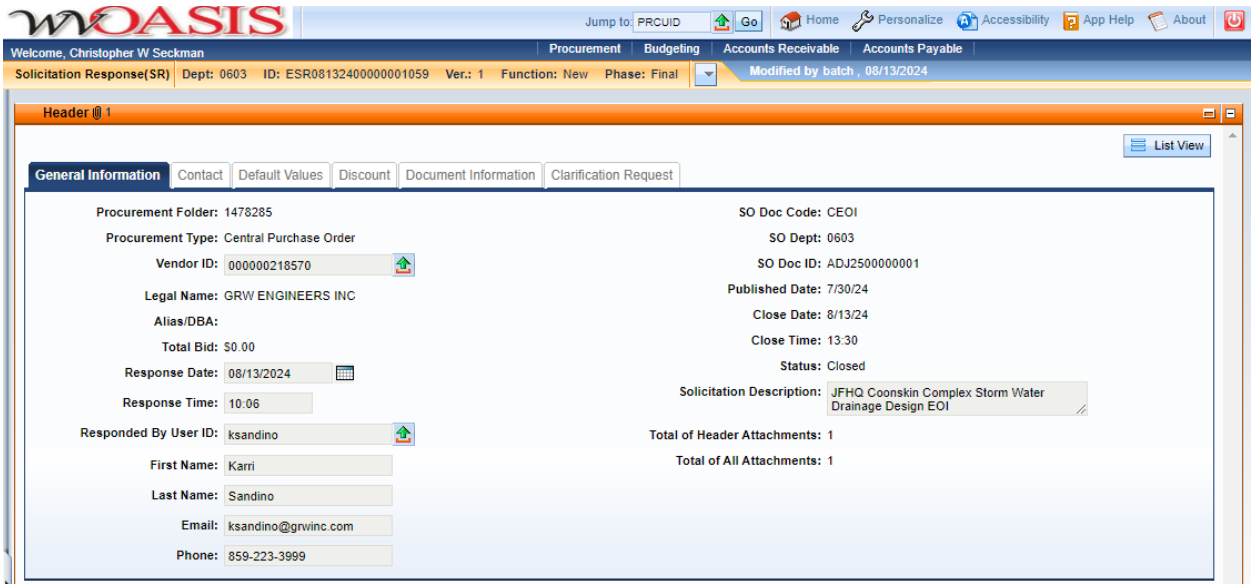
The following documentation is an electronically-submitted vendor response to an advertised solicitation from the *West Virginia Purchasing Bulletin* within the Vendor Self-Service portal at ***wvOASIS.gov***. As part of the State of West Virginia's procurement process, and to maintain the transparency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


WVOASIS
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Welcome, Christopher W Seckman
Procurement | Budgeting | Accounts Receivable | Accounts Payable
Solicitation Response(SR) Dept: 0603 ID: ESR08132400000001059 Ver.: 1 Function: New Phase: Final
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List View
General Information
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Document Information
Clarification Request
Procurement Folder: 1478285
Procurement Type: Central Purchase Order
Vendor ID: 000000218570
Legal Name: GRW ENGINEERS INC
Alias/DBA:
Total Bid: $0.00
Response Date: 08/13/2024
Response Time: 10:06
Responded By User ID: ksandino
First Name: Karri
Last Name: Sandino
Email: ksandino@grwinc.com
Phone: 859-223-3999
SO Doc Code: CEOI
SO Dept: 0603
SO Doc ID: ADJ2500000001
Published Date: 7/30/24
Close Date: 8/13/24
Close Time: 13:30
Status: Closed
Solicitation Description: JFHQ Coonskin Complex Storm Water Drainage Design EOI
Total of Header Attachments: 1
Total of All Attachments: 1

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

State of West Virginia
Solicitation Response

Proc Folder:	1478285
Solicitation Description:	JFHQ Coonskin Complex Storm Water Drainage Design EOI
Proc Type:	Central Purchase Order

Solicitation Closes	Solicitation Response	Version
2024-08-13 13:30	SR 0603 ESR08132400000001059	1

VENDOR

000000218570
GRW ENGINEERS INC

Solicitation Number: CEOI 0603 ADJ2500000001

Total Bid: 0 **Response Date:** 2024-08-13 **Response Time:** 10:06:30

Comments: GRW appreciates this opportunity to respond to your CEOI for architectural and engineering design services to develop construction documents for the construction of a storm water drainage plan at the WV Army National Guard Base (Coonskin Complex), located in Charleston, Kanawha County, WV..

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

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

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

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
1	JFHQ Coonskin Complex Storm Water Drainage Design EOI				0.00

Comm Code	Manufacturer	Specification	Model #
81101508			

Commodity Line Comments:

Extended Description:

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

EXPRESSION OF INTEREST

Coonskin Complex Storm Water Drainage Design | Charleston, WV

WV Army National Guard | WV Department of Administration | CEOI 0603 ADJ2500000001

August 13, 2024

engineering | architecture | geospatial

GRW | 801 Corporate Drive Lexington, KY 40503 | 859.223.3999

Expression of Interest

JFHQ Coonskin Complex Storm Water Drainage Design

CEOI 0603 ADJ2500000001

WV Department of Administration
WV Army National Guard

Table of Contents

COVER LETTER

GRW | engineering | architecture | geospatial
801 Corporate Drive | Lexington, KY 40503
859.223.3999 | www.grwinc.com

August 13. 2024

Mr. David H. Pauline, Senior Buyer
Department of Administration, Purchasing Division
State of West Virginia
2019 Washington Street East
Charleston, WV 25305-0130

RE: JFHQ Coonskin Complex Storm Water Drainage Design
Solicitation No.: CEOI 0603 ADJ2500000001

Dear Mr. Pauline and Selection Committee Members:

Achieving the goals you've established for the storm water drainage renovation project at Coonskin Complex is greatly dependent upon selecting the right A/E design partner. GRW would like to work with you on your project – and we believe we offer you the right experience and expertise to successfully deliver the results you require.

Experience & Familiarity

GRW is a full-service A/E design consulting firm that has been working with clients like you on similar projects throughout the region for more than 60 years. Our project team's experience with the National Guard in West Virginia is substantial and ranges from projects with Camp Dawson and the West Virginia ARNG Martinsburg, to the West Virginia ANG's 130th Airlift Wing, 167th Airlift Wing, and 167th Airlift Wing. **See Sections 2.0 and 3.0.**

GRW and its subsidiary Chapman Technical Group (offices in St. Albans and Buckhannon, WV) also have extensive experience in developing projects through the WV Purchasing Division. For example, we have designed, bid, and constructed numerous, major Division of Natural Resources projects throughout the state, as well as projects for the Department of Highways. Although every agency has its own particulars with regard to bidding projects, our experience with the WVARNG and the State's Purchasing Division will help ensure effective and efficient project delivery.

Our Team Offers Stormwater/Site Engineering Expertise

By selecting GRW, you will be working with a knowledgeable team who regularly work on the design of stormwater drainage systems for existing infrastucture, as well as new developments. These professionals offer specialized experience with environmental compliance, stormwater, and groundwater pollution prevention and protection plans. **Section 2.0** includes more information about our relevant project experience. You can read more about our team member qualifications in the resumes provided in **Section 3.0.**

A few of the projects featured in our EOI – all of which our Project Manager worked on – include:

- Lewisburg Stormwater Management Study, Lewisburg, WV
- Capitol Complex, East Campus Stormwater Management, Charleston, WV
- Ravenna Stormwater Improvements, Ravenna, KY
- Sanitation District No. 1 Carol Drive Stormwater Improvements, Taylor Mill, KY
- Sanitation District No. 1 Maple and Lytle Stormwater Improvements, Newport, KY

Our Understanding of Working with the West Virginia Guard

As mentioned, GRW has a long history with the National Guard in West Virginia. For example, a few of these projects include:

- Camp Dawson Relocation of Electrical Power and Communications Lines
- Camp Dawson Live Fire Exercise Shoot House
- Camp Dawson Ranges at Briery Mountain
- Camp Dawson Volkstone Training Area Utility Upgrade
- West Virginia ARNG Martinsburg Secure Facility Renovation
- West Virginia ANG 130th Airlift Wing Building 107 Renovation
- West Virginia ANG 130th Airlift Wing Security Forces Squadron Facility Renovation and Expansion
- West Virginia ANG 167th Airlift Wing C-17 Composite Material Shop
- West Virginia ANG 167th Airlift Wing C-17 Corrosion Control Hangar Modifications
- West Virginia ANG 167th Airlift Wing C-17 Fuel Cell Hangar Modifications
- West Virginia ANG 167th Airlift Wing C-17 Maintenance Hangar Modifications

We Are Committed to Your Success

Taking care to meet your goals for your budget and schedule is a priority, as it is on every GRW project. The ultimate measure of success is how well the completed projects meet your needs and aspirations. To this end, our project team is committed to establishing an inclusive, methodical and logical approach to the design process. **See Sections 4.0 and 5.0.**

Thank you for your consideration and for the opportunity to work with you. We look forward to the next step in your selection process where we can present our additional ideas toward the successful completion of your project.

If you have questions about our qualifications or any other items, please feel free to call or email.

Respectfully submitted,

Seth Mittle, PE

859-880-2257
smittle@grwinc.com

SECTION 1.0 | GRW Introduction

1.0 GRW Introduction

About GRW

Founded more than 60 years ago, GRW is an employee-owned architectural, engineering and geospatial services firm with approximately 200 employees.

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

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

Our Corporate Culture

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

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

Department of Defense Experience

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

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

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

GRW's Experience with the West Virginia Army & Air National Guard – Partial List

GRW has a long history of experience with the West Virginia Army and Air National Guard. Examples of many of these projects are shown on these pages.

West Virginia ARNG Camp Dawson Ranges at Briery Mountain, Kingwood, WV – Project included design and construction of new Hand Grenade Familiarization Range and Live Fire Exercise Breach (LFEB) Training Range at Briery Mountain Training area to conform site to government standard Breach Range Design Requirements. Included design of access road to the remote site, electrical connections, breaching structures, open covered range operations and control shelter, storage building, dry latrine, covered viewing stands, and parking area. **Client Contact:** MAJ Robert Kincaid, Jr., Range Operations Manager, (304) 791-4459, robert.j.kincaid.mil@mail.mil

West Virginia ARNG Camp Dawson Live Fire Exercise Shoot House, Kingwood, 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. **Client Contact:** MAJ Robert Kincaid, Jr., Range Operations Manager, (304) 791-4459, robert.j.kincaid.mil@mail.mil

West Virginia ARNG Relocation of Camp Dawson Electrical Power and Communications Lines, Kingwood, WV – Study and design for 4-phase construction program to relocate overhead electrical power lines and communications lines (telephone, data, etc) to underground duct banks in order to eliminate historic problems associated with overhead services. Phase 1: 3000 LF of power line relocation to new underground duct banks, with the associated replacement of pole-mounted transformers with pad-mounted transformers (1000 KVA to 50 KVA). Phase 2: Relocation of communications service to new underground duct banks along Phase 1 route. Phases 3 & 4: Relocation of approximately 2000 LF of overhead power lines and overhead communications lines to new duct banks, respectively. **Client Contact:** MAJ Robert Kincaid, Jr., Range Operations Manager, (304) 791-4459, robert.j.kincaid.mil@mail.mil

West Virginia ARNG Camp Dawson Volkstone Training Area Utility Upgrade, Kingwood, WV – Expansion of sewer (1,996 LF), water (1,996 LF) and electric (1,797 LF) to all existing and future buildings, unit training equipment site (UTES) and wash rack locations. Also included design of Forward Operating Base (FOB) including 20 14' x 16' wooden buildings, new bath house for approximately 200 people and pavilion. **Client Contact:** MAJ Robert Kincaid, Jr., Range Operations Manager, (304) 791-4459, robert.j.kincaid.mil@mail.mil

West Virginia ANG 130th Airlift Wing Master Plan Update and CIP, Charleston, WV – Engineering consulting for preparation of a Web-Enabled Master Plan Update and GeoBase Common Installation Picture (CIP) for the 130th Airlift Wing in Charleston to evaluate benefits and impacts associated with acquiring additional airfield property for aircraft parking, operations, and maintenance facilities to meet current and future proposed missions. Identified constraints and opportunities that apply to the 130th AW aircraft parking, operations and maintenance areas, including Anti-Terrorism/Force Protection (AT/FP) measures; quantified existing and required airfield facilities; developed new alternatives for long- and short-range plans; and created plan tabs that depict constraints and

opportunities, long- and short-range development plans, land use and circulation plan, real estate plan, and facility utilization plan. **Client Contact:** Capt Harry Netzer, Deputy BCE, (304) 341-6649, harry.g.netzer.mil@mail.mil

West Virginia ANG 130th Airlift Wing Communications Duct, Charleston, WV – 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 to consist of two ITNs (Information Transfer Nodes); ITN-1 in the new Communications Facility and ITN-2 in new hangar, Building 407. Duct bank designed to 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 was proposed. **Client Contact:** LtCol Rick Thomas, Base Civil Engineer

West Virginia ANG 130th Airlift Wing Aboveground Fuel Storage Dispensing Facility, Charleston, WV – 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. **Client Contact:** LtCol Rick Thomas, Base Civil Engineer

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. **Client Contact:** MG Melvin Burch, (304) 561-6458, melvin.burch@us.army.mil

West Virginia ARNG Readiness Center Commissioning Projects, WV – LEED Fundamental Commissioning for four building construction projects: Buckhannon AFRC - Phase I, 38,000 SF and $13,150,000 construction cost; Morgantown Readiness Center, 58,520 SF and $20,500,888 construction cost; Moorefield Readiness Center, 57,256 SF and $17,725,351 construction cost; and Logan Readiness Center, 58,520 SF and $14,296,326 estimated construction cost. Scope included all commissioning, coordination and documentation required for LEED certification on the HVAC systems and networked controls, the lighting control systems and the domestic hot water distribution systems. **Client Contact:** MAJ Daniel Clevenger, CFMO, (304) 561-6446, daniel.w.clevenger.mil@mail.mil

West Virginia ANG 130th Airlift Wing LOX Storage Relocation, Charleston, WV – 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 included 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). **Client Contact:** Capt Harry Netzer, Deputy BCE, (304) 341-6649, harry.g.netzer.mil@mail.mil

West Virginia ANG 130th Airlift Wing Squadron Operations Facility Repair, Charleston, WV – Design services for $3 million renovation and energy-efficient improvements to 25,765 SF facility with history of remodeling activities resulting in a building that inadequately serves its users (Administration and Operations, Base Operations, Command Post, and Life Support and Fitness Center). Work included Charrette to develop alternative floor plans. Selected design allows for efficient use of space; HVAC, electrical and fire protection systems upgrade; and roof repairs. Designed to achieve USGBC LEED Certified rating, meet all ANG Sustainable Design criteria and utilize MILCON/SRM split funding. **Client Contact:** Capt Harry Netzer, Deputy BCE, (304) 341-6649, harry.g.netzer.mil@mail.mil

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 included combination of various construction materials including vitrified clay pipe (VCP) with dilapidated sections allowing high rates of inflow and infiltration during storm events. **Client Contact:** Col Rodney Neely, MSG Commander, (304) 616-5198

West Virginia ANG 167th Airlift Wing Maintenance Mall (Building 307) Repair, Martinsburg, WV – Concept Development Report for C-5 aircraft complex 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. **Client Contact:** Col Rodney Neely, MSG Commander, (304) 616-5198

West Virginia ANG 130th Airlift Wing Communications Facility Code / Criteria Review, Charleston, WV – 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. **Client Contact:** LtCol Rick Thomas, Base Civil Engineer

West Virginia ANG 130th Airlift Wing Building 107 Consolidation Study, Charleston, WV – 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 included floor plans for each phase as well as final floor plan and construction cost estimate. Major challenge involved consolidation of organizations with a total authorized area of over 50,000 SF into facility with 40,000 SF footprint - no additions were allowed. AT/FP, energy and ADA accessibility measures were incorporated, as well as current ANG guidelines. **Client Contact:** Capt Harry Netzer, Deputy BCE, (304) 341-6649, harry.g.netzer.mil@mail.mil

West Virginia ANG 130th Airlift Wing Security Forces Squadron Facility Renovation and Expansion, Charleston, WV – Complete architectural and engineering Type A, B and C services for $2 million renovation of 5,395 SF SFS facility (B142) including addition of 2,500 SF administrative and training space to better serve unit. Project (MILCON/SRM split funded) increased space and improved mission performance and operational efficiency for command and administrative functions in ways that are energy efficient, code compliant and in accordance with current ANG policies. Project met LEED Silver design criteria, and all AT/FP and ADAAG requirements. **Client Contact:** Capt Harry Netzer, Deputy BCE, (304) 341-6649, harry.g.netzer.mil@mail.mil

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

operations, administration, storage, and other mission-related activities. **Client Contact:** Capt Harry Netzer, Deputy BCE, (304) 341-6649, harry.g.netzer.mil@mail.mil

West Virginia ANG 167th Airlift Wing C-5 Apron Repair, Martinsburg, WV – Evaluation and design services to repair fractured/heaved C-5 apron caused by poorly draining base and sub base. Pavement repair of approximately 1,755 SY included demolition and removal of fractured and heaved pavement down to below original base and sub base, compaction of new material, placing of sub base and base and concrete pavement parking apron, asphalt shoulder stabilization, all constructed to support C-5 aircraft. Utility and site improvements were also included. **Client Contact:** LtCol John Poland, Base Civil Engineer, (304) 616-5198, john.r.poland4.mil@mail.mil

West Virginia ANG 167th Airlift Wing C-17 Fuel Cell Hangar Modifications, Martinsburg, WV – Fast-track design of fuel cell hangar modifications required to meet 167AW's change in mission from C-5 to C-17 aircraft. **Client Contact:** Major Emerson Slack, Deputy Base Civil Engineer, (304) 616-5233, emerson.c.slack.mil@mail.mil

West Virginia ANG 167th Airlift Wing C-17 Maintenance Hangar Modifications, Martinsburg, WV – Fast-track design of maintenance hangar modifications required to meet 167AW's change in mission from C-5 to C-17 aircraft. **Client Contact:** Major Emerson Slack, Deputy Base Civil Engineer, (304) 616-5233, emerson.c.slack.mil@mail.mil

West Virginia ANG 167th Airlift Wing C-17 Composite Material Shop, Martinsburg, WV – Fast-track design of composite material shop to the existing corrosion control hangar required to meet 167AW's change in mission from C-5 to C-17 aircraft. **Client Contact:** Major Emerson Slack, Deputy Base Civil Engineer, (304) 616-5233, emerson.c.slack.mil@mail.mil

West Virginia ANG 167th Airlift Wing C-17 Corrosion Control Hangar Modifications, Martinsburg, WV – Fast-track design of corrosion control hangar modifications required to meet 167AW's change in mission from C-5 to C-17 aircraft. **Client Contact:** Major Emerson Slack, Deputy Base Civil Engineer, (304) 616-5233, emerson.c.slack.mil@mail.mil

West Virginia ANG 167th Airlift Wing Munitions Storage, Martinsburg, WV – New munitions inspection building, five magazines (all pre-manufactured modular units), new concrete pads (2,865 SF), all-weather pavement (5,566 SF) for vehicular access, gate/fencing, utilities, exterior lot lighting, communications, and security for the munitions area. **Client Contact:** Major Emerson Slack, Deputy Base Civil Engineer, (304) 616-5233, emerson.c.slack.mil@mail.mil

West Virginia ARNG Martinsburg Secure Facility, Martinsburg, WV – Renovations to 2-story area (6,200 SF per level) to provide new secure office space and related support spaces for specific using agency. Included HVAC replacement; new interior finishes (including raised access flooring), structural roof deck and roofing system, elevator and fire stairs, building security and cameras, and site security fencing, sliding vehicular security gates, exterior parking; and site utility and storm drainage improvements. **Client Contact:** Matthew Reynolds, Deputy Branch Chief - Design & Construction, (304) 561-6568, matthew.t.reynolds18nfg @mail.mil

SECTION 2.0 | Project Experience

2.0 Project Experience

Within this section, we have included examples of our recent relevant project experience for your review. We encourage you to contact any of our references to verify our performance.

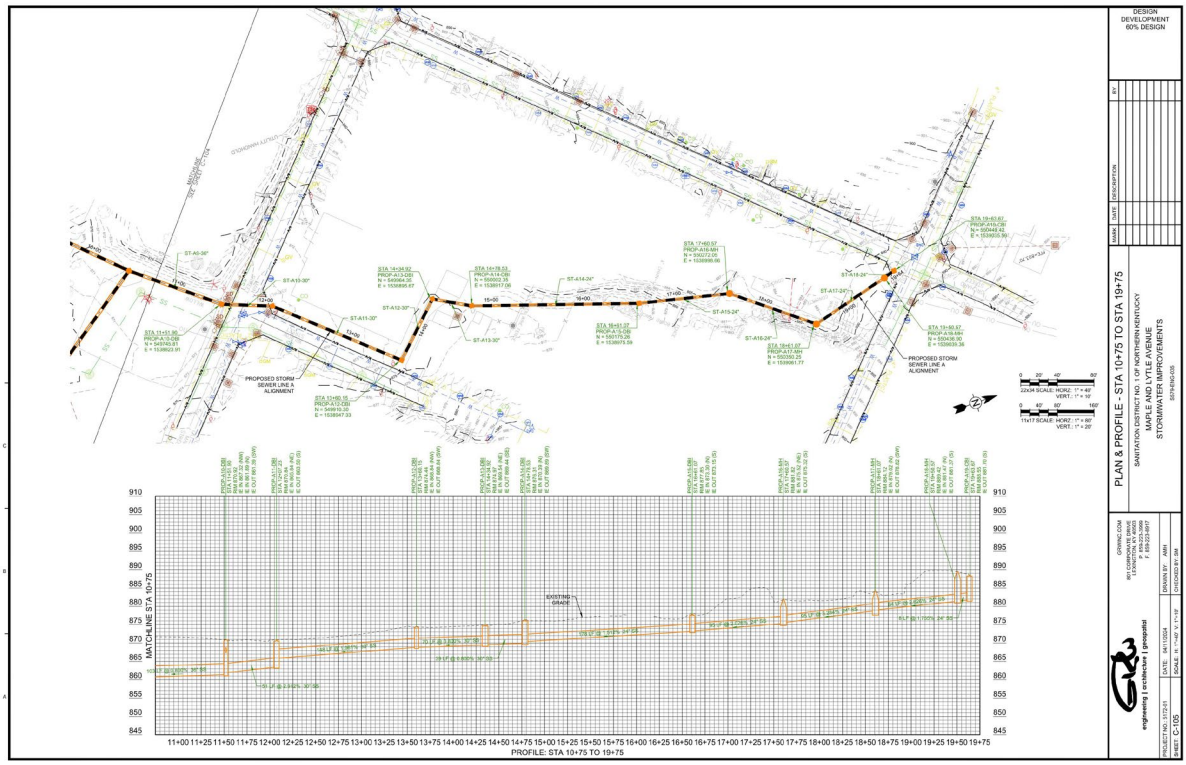
Maple & Lytle Drive Storm Improvements

Sanitation District No. 1 | Elsmere, KY

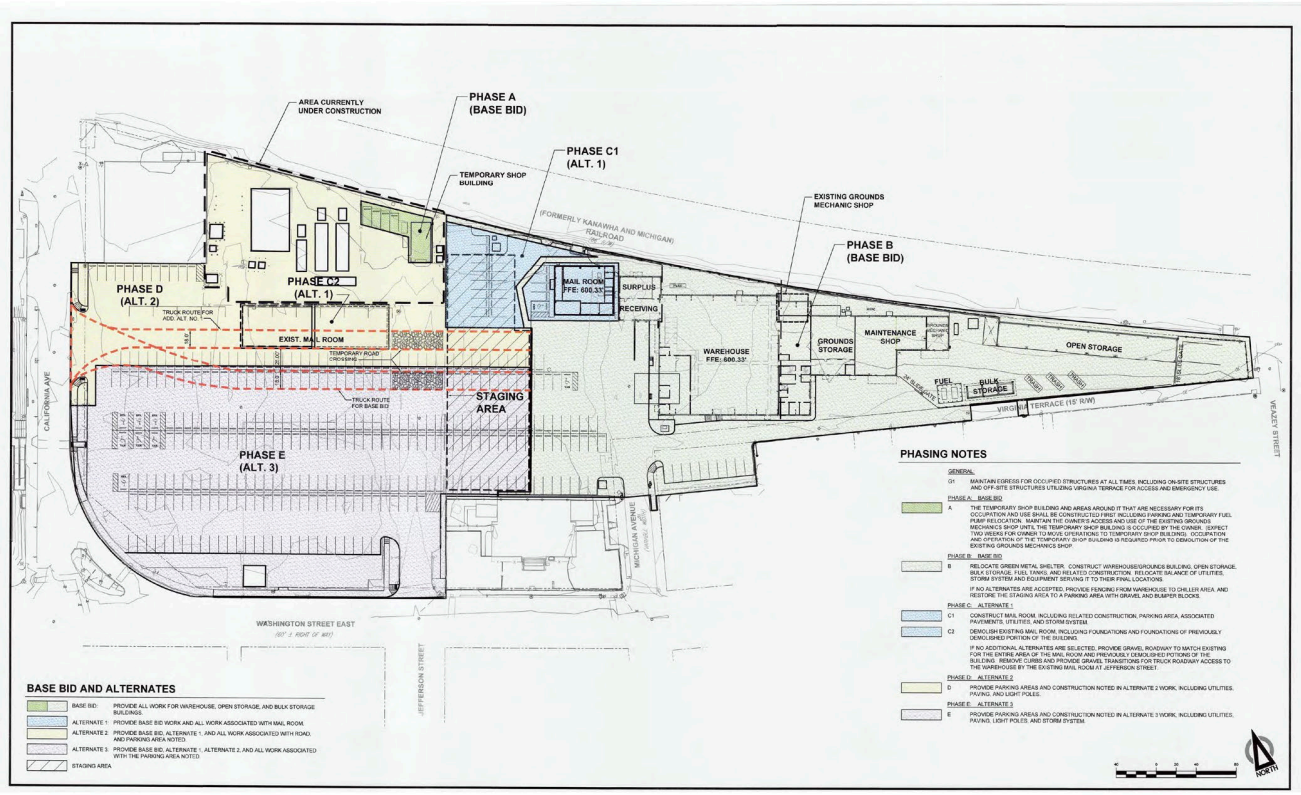
GRW was selected by SD1 to provide professional engineering design services and construction administration for the Maple and Lytle Drive Improvements. Residents of the area surrounding Maple and Lytle Drives in Elsmere have been experiencing damaging flood events on a frequent basis for several years. During more frequent rainfall events, storm water quickly exceeds the capacity of the existing storm system, which is substantially undersized, leading to flooding in streets, backyards, and the associated structures.

This project is currently in the 90% Design Phase. Survey has been completed on the project. GRW has submitted and reviewed the 60% Design and Preliminary Design Memorandum. Two alignments were proposed, and one has been selected. Geotechnical Investigation is currently underway and the hydraulic analysis on the proposed storm conveyance has been performed to accurately size the pipes. The project is on schedule and final design set to be completed by July 2024 with construction completed by August 2025.

CLIENT CONTACT: Dave Gilligan, Project Manager, Sanitation District No. 1, (859) 578-6775, dgilligan@sd1.org



STORM WATER ENGINEERING



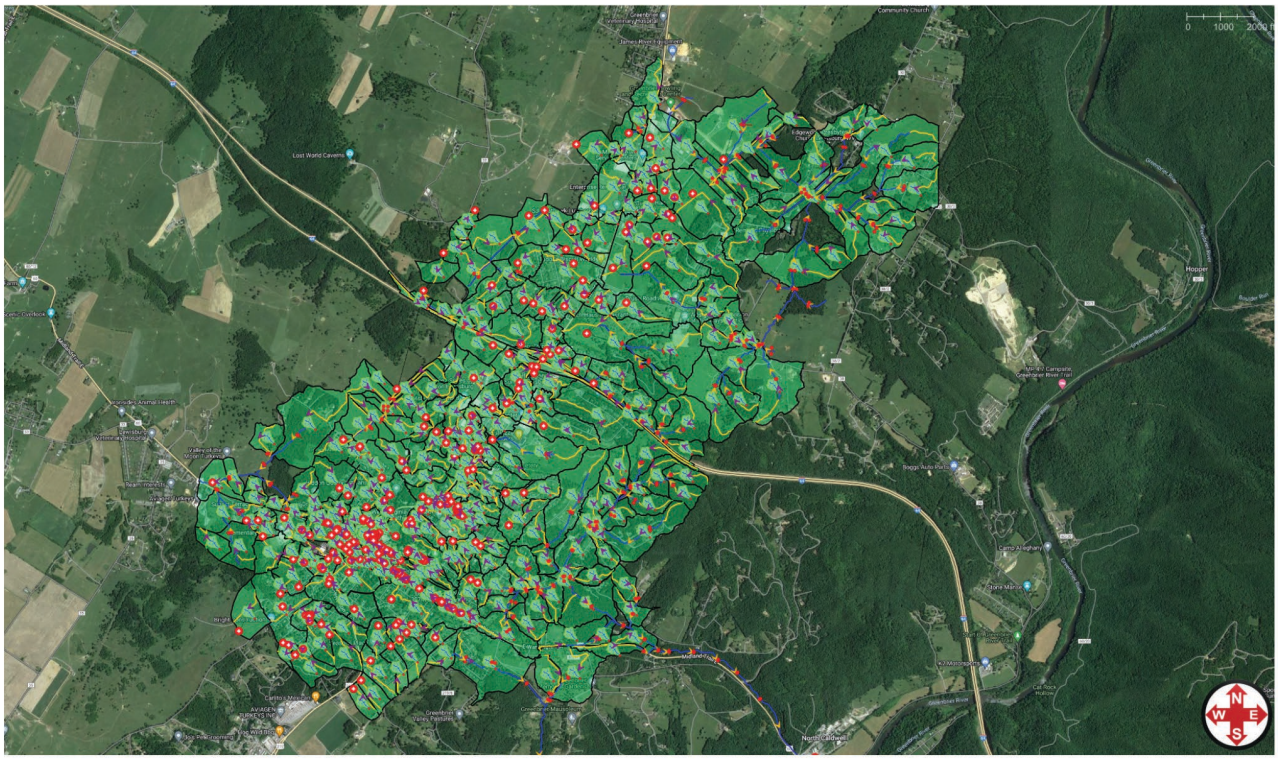
WV Department of Administration

Capitol Complex - East Campus
Charleston, WV

The State of West Virginia needed to upgrade and consolidate its warehouse facilities, as well as its building and grounds maintenance facilities. A new 28,000 square-foot warehouse building,a 5,000 square-foot buildings and grounds facility, and a 3,000 square-foot mail room building were included in the project. Parking and vehicle access were major components and low-impact storm water facilities were designed to minimize impact on the City of Charleston's combined sewer system. Through the use of detention, we mitigated 6.74 acres of urban runoff to match the pre-development runoff conditions.

Chapman Technical Group provided architectural design; civil and structural engineering; mechanical, electrical and plumbing engineering; and landscape architecture services. Project completion is scheduled for 2024.

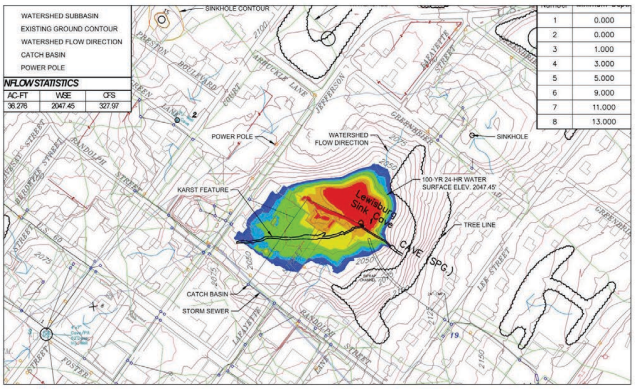
STORM WATER ENGINEERING



City of Lewisburg

Comprehensive Storm Water Report
Lewisburg, WV

Chapman Technical Group was retained by the City of Lewisburg to provide professional engineering services for the preparation of a Comprehensive Storm Water Report. The scope of work includes field survey and data collection for the preparation of an overall GIS storm water map of the city, 2-yr, 10-yr, 25-yr, 50-yr, and 100-yr storm water modeling and analysis of all major drainage areas, and recommendations for storm water problem areas. Work also included development of a storm water operation and maintenance plan, for both conventional and karst (sinkhole) drainage areas, review of the city's current storm water ordnance, and presentation of a storm water workshop for public education and outreach.



Student Housing Complex

Asbury Theological Seminary | Wilmore, KY

GRW has provided planning, development plan and zoning approval, and site design services (including storm and sanitary sewers, roadway alignments, and water mains) for Asbury Theological Seminary's 56-acre North Campus Housing Project in Wilmore, KY.

Phase 1A and **1B** consisted of 100 town homes for family housing and 5 dormitory-style housing units on 31 acres. The site development consisted of storm sewer piping, as well as the design and analysis of the site utilities for water distribution, gravity sanitary sewer, sanitary sewer force mains and an upgrade of a sanitary sewer pump station.

The storm sewer system included storm sewers, curb inlets, drop inlets, headwalls, manholes, etc. Phase 1A storm sewers included **3,207 LF of pipe** ranging in size from **15" to 30"** in diameter. Phase 1B included **4,805 LF of pipe** ranging in size from **8" to 48"** in diameter, and Phase 2 consisted of **2,915 LF of pipe** ranging in size from **12" to 24"** in diameter. The project also included analysis of the pre- and post-development storm water to determine the size of the **storm water detention basin**. The analysis resulted in a total storage volume of 15 acre-feet for Phase 1A and 1B. For Phase 2, a 4 acre-feet storage pond was designed and placed.

The Kalas Village (Phase C) consists of an additional 50 town homes and a community center, as well as tennis, volleyball and basketball courts, constructed on 25 acres. **Storm sewers for Phase C included 2,915 LF of pipe ranging in size from 12" to 24" in diameter.**

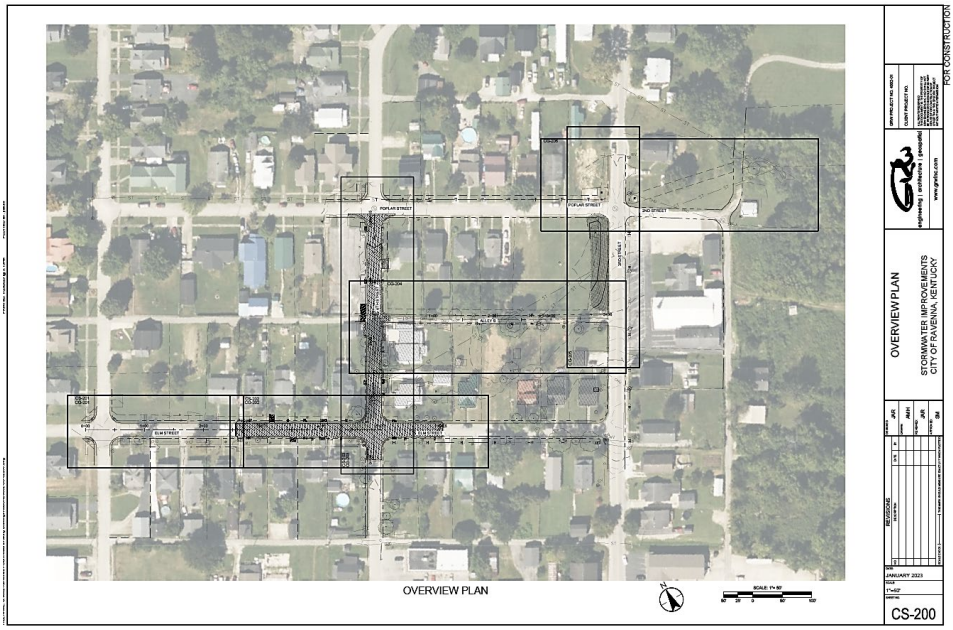
GRW participated in the design Charrette process that involved a committee of faculty and staff to develop the needs and priorities of the Seminary community. For example, as desired by Asbury, the overall design of both Phases offers a seamless appearance so that residents living in either area feel part of the same community.

CLIENT CONTACT: Bryan Blankenship, Vice President of Finance, Asbury Theological Seminary, (859) 858-3581, brian.blankenship@asburyseminary.edu

Ravenna Storm Water Improvements

City of Ravenna | Ravenna, KY

The City of Ravenna selected GRW to assist with identification of solutions to persistent flooding problems along 4th, 6th, 7th, and 8th Streets. Ravenna is located in the Kentucky River valley at the base of a mountain approximately 400+ feet above the developed town. The city limits are approximately one-third square mile. The flooding concerns were related to runoff from the hillside north of town; they are not associated with the lower areas adjacent to the Kentucky River.



Overview of East Improvement Area

GRW worked closely with the City of Ravenna to identify major areas of flooding and determine feasible solutions. Questionnaires were sent to residents of Ravenna to determine the extent and causes of flooding in the project area. Using data from CCTV cameras, as well as responses from the questionnaires, GRW created an existing conditions model of the 62-acre watershed to evaluate the capacity of the current storm sewer system. The CCTV utility survey also indicated that the storm sewers were in very poor condition with pipe collapses and debris. Based on project scope and phasing, GRW focused their efforts on two major areas of flooding that corresponded to questionnaire results and the existing conditions model.

The City of Ravenna and GRW discussed feasible design solutions and agreed upon two improvement project areas - East and West - that will mitigate both home and street flooding. The west improvement project focused on addressing the flooding concerns along Elm Street between 7th and 8th Streets as well as the area between Poplar Street, 7th Street and the alley.

The second project area was the east improvement project, which focused on addressing flooding concerns near 4th and Elm Street.

GRW designed two proposed storm sewer networks with enough capacity for a 25-year rainfall. Construction documents were prepared to adjust roadway grades, reestablish curb and gutter, and install new storm sewers. The west and east improvement projects propose **over 5,000 linear feet of pipe and 74 new storm structures**. An engineering report was also created to document GRW's findings, analysis, and proposed design.

To assist the City with grant funding opportunities, GRW prepared an opinion of probable cost for the construction project. In addition services included obtaining easements and identifying future permanent and temporary easements.

CLIENT CONTACT: Sharon Snowden, Mayor, City of Ravenna, (606) 723-3332, cityofravenna@irvineonline.net

Village Circle Storm Water Project

City of Glasgow | Glasgow, KY

GRW was hired to conduct a topographic survey of the site and prepare a design to alleviate backlot drainage issues from the swale that runs near the area of 101 and 111 Village Circle. The design intent was to capture the flow originally released to the swale and piped to the next downstream structure.

Work included storm water modeling, drawings and specifications, opinion of probable costs, and an erosion control plan/BMP ***(shown in site plan below)*****. The project includes over 1,400 LF of storm sewer ranging in sizes from 12" – 24".** The site is unique in that due to low cover, the large pipe containing the flow from the adjacent neighborhood, had to be broken into multiple smaller pipes running in parallel.

CLIENT CONTACT: April Russell, Storm Water Manager, City of Glasgow, (270) 651-5977, grants@glasgow-ky.com

Belmont Park Improvements – Storm Water/Drainage Management

New York Racing Association, Inc. (NYRA) | Elmont, NY

GRW has been working with the New York Racing Association (NYRA) to complete several improvement projects at Belmont Park in Elmont, NY. NYRA is the not-for-profit corporation that operates the three largest Thoroughbred horse racing tracks in the state of New York: Aqueduct Racetrack in South Ozone Park, Queens; Belmont Park in Elmont, and Saratoga Race Course in Saratoga Springs.

For a recent project to improve infield access, GRW provided design and construction documents for three, 500-foot tunnels under the existing Belmont racetracks, one for commercial traffic, one for pedestrians and the other for horses and ambulances.

GRW designed access ramps with new storm sewers for each of these tunnels. Since the tunnel elevations ranged from 18- to 30-feet below grade, GRW used innovative approaches to handle the storage and flow of the storm water. While some storm water was able to be redirected to dry wells to allow infiltration, other structures were too deep and required a pump station.

To reduce the demand on the pumps, **underground storm water detention systems** were designed per Federal Highway Administration guidelines to hold up to a 50-year rainfall event. The new ponds will store the additional runoff to allow the pumps to discharge up to 5.8 cubic feet per second or approximately 3.7 million gallons per day. Once pumped, the storm water will continue to a system of dry wells for infiltration or to the track storm water system.

As the track engineer, GRW has also designed the **storm water system** for the horse tracks, which includes perforated underdrains, collector pipes, trunk lines, rain gardens and underground detention. The project collects and manages storm water on approximately 80 acres. A variety of underground detention solutions are being used including dry wells, chambers, and upsized pipe. **Thus far, GRW has designed a storm water system with approximately 30 miles of pipe and 216,000 cubic feet of underground detention storage.**

CLIENT CONTACT: Glen Kozak, VP Facilities & Racing Surfaces, New York Racing Association, Inc. (NYRA), (718) 659-2377, GKozak@nyrainc.com

Carol Drive Storm Water Improvements

Sanitation District No. 1 | Taylor Mill, KY

Sanitation District No. 1 (SD1) selected GRW to provide engineering services for a storm water improvements projects in an area near Carol Drive where flooding events are frequent in the project area and the current storm infrastructure is inadequate.

The desired outcome of the project is to convey the 25-year, 24-hour storm through the project area while diverting the storm water flow with two new detention ponds and maintaining existing storm water controls.

During initial stages of the project GRW will collaborate with SD1 staff to identify possible access points to construct the project, as well as design the relocation of the existing line. The construction method selected will ultimately be determined by SD1 staff with GRW providing our analysis on the combination of ease of access, the ability to work with property owners, existing utilities, and the relocation of the storm sewer elements.

GRW's scope includes coordinating with applicable agencies and utilities that may be impacted by construction of the storm improvements. The approach involves developing the most feasible, cost effective and optimal route for the Carol Drive Storm Improvements that attains the goals of the project.

CLIENT CONTACT: AJ Gross, Planning Project Manager, Sanitation District No. 1, (859) 578-7450, agross@sd1.org

SECTION 3.0 | Staff Qualifications

3.0 Staff Qualifications

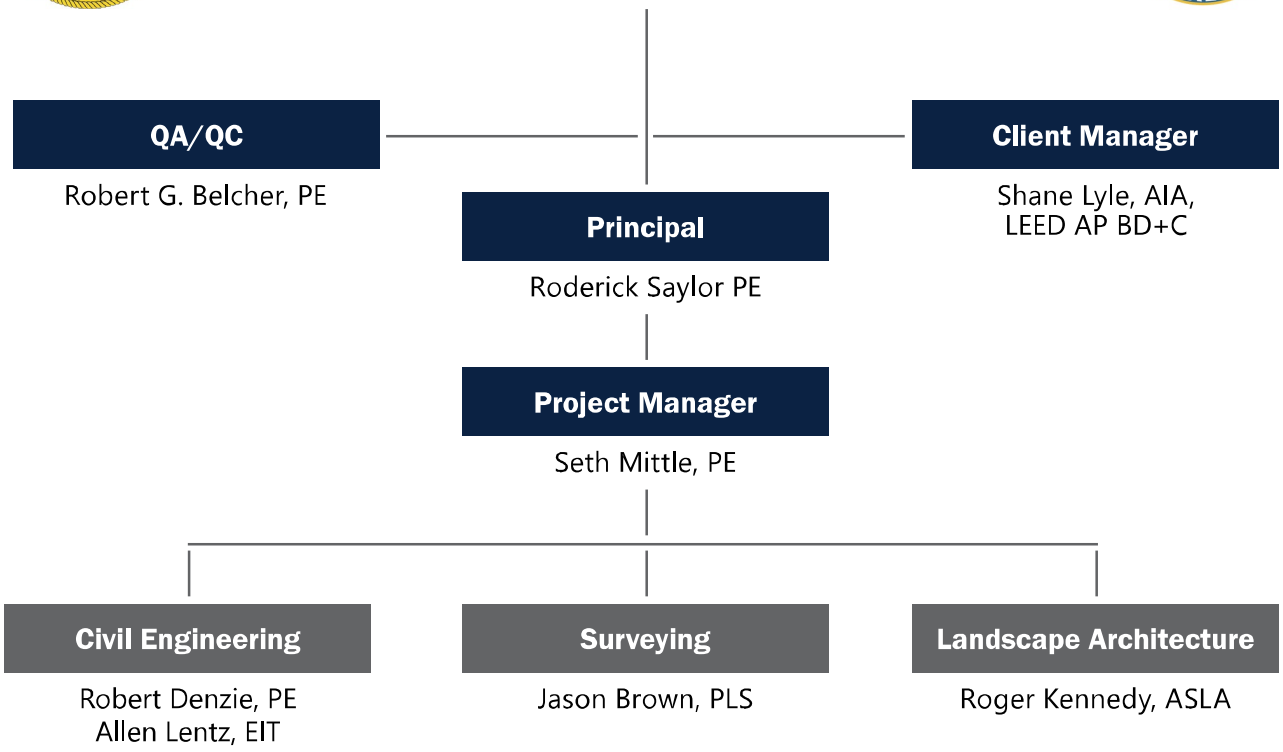
For the storm water drainage design project at the JFHQ Coonskin Complex each GRW team member has relevant experience and availability.

Our clients directly benefit from **GRW's one-stop business model and multidiscipline staff** who specialize in engineering (civil/site, water resources, mechanical, electrical, structural, transportation), architecture, landscape architecture, survey, and interior design.

These capabilities allow our teams to **collaborate** more efficiently with you, which makes a significant positive impact on your project experience.

Resumes are on the following pages. Read more about our **approach** and **methodology**, including an overview of key team member responsibilities in **Section 4.0**.

West Virginia Department of Administration and West Virginia Army National Guard



YEARS OF EXPERIENCE:
With GRW: 19
Total: 19

EDUCATION
B.S., Civil Engineering, 2006, University of Kentucky

REGISTRATION
Professional Engineer: KY, FL, IN, OH, KS, MD, NY, NE, TN

PROFESSIONAL AFFILIATIONS AND TRAINING
KYTC Complete Streets, Roads, and Highways Manual Training (10/27/23)

Roderick Saylor, PE

Sr. Vice President / GRW Principal

RELEVANT PROJECT EXPERIENCE

Camp Lemonnier Renovate Storm Sewer Drainage, Camp Lemonnier, Djibouti, – Project Manager. Project required repair of installation, repair and/or replacement of various drainage structures using conventional design and construction methods. Additionally, new storm water channels, culverts, channel lining and channel repair were required across installation. Camp Lemonnier, Djibouti (CLDJ) is expeditionary headquarters for Combined Joint Task Force – Horn of Africa (CJTF-HOA).

Glasgow Village Circle Storm Water Project, Glasgow, KY – Principal. To alleviate backlot drainage issues from swale that runs near area of 101 and 111 Village Circle, completed storm water modeling, cost estimate, and an erosion control plan/BMP, as well as the design of over 1,400 LF of storm sewer ranging in sizes from 12"- 24".

NYRA Belmont Park Tunnel & Infield Access & Storm Water/Drainage Management, Elmont, NY – Project Manager. As part of large infield access project, providing design and construction services for three, 18- to 30-feet below grade, 500-foot tunnels, including access ramps with new storm sewers for each. Storm water management system for additional runoff has new triplex storm water pump station and force main, as well as underground storm water detention system to hold up to 50-year rainfall event. Storm water system has approximately 30 miles of pipe and 216,000 cubic feet of underground detention storage

Ravenna Storm Water Improvements, Ravenna, KY – Principal. Preliminary engineering report and identification of solutions to persistent flooding problems related to runoff from the hillside north of town, as well as design for two (west and east) storm sewer networks involving over 5,000 linear feet of pipe and 74 new storm structures with enough capacity for a 25-year rainfall. Evaluation of 62-acre watershed was included, as well as services to obtain easements and grant funding assistance.

Sanitation District No. 1 Carol Drive Storm Water Improvements, Taylor Mill, KY – Principal. Engineering, bidding, and construction administration services for a storm water improvements project in an area where flooding events are frequent, and the current storm infrastructure is inadequate. The goal is to convey the 25-year, 24-hour storm through the project area while diverting the storm water flow with two new detention ponds and maintaining existing storm water controls.

Sanitation District No. 1 Maple and Lytle Storm Water Improvements, Newport, KY – Principal. Design and construction phase services for improvements to the current undersized storm sewer and drainage system at the intersection of Maple and Lytle Drives in the City of Elsmere. The drainage area is approximately 77 acres and storm water quickly exceeds the capacity of the existing storm system.

West Virginia ANG 130th Airlift Wing Aboveground Fuel Storage Dispensing Facility, Charleston, WV – Civil Engineer. Design for new aboveground fuel station comprising two new aboveground tanks (1 diesel, 1 unleaded gasoline) and new dispensing system, replacing older fuel station that included underground fuel storage tanks.

West Virginia ANG 130th Airlift Wing Security Forces Squadron Facility Renovation and Expansion, Charleston, WV – Civil Engineer. Complete architectural and engineering Type A, B and C services for $2 million renovation of 5,395 SF SFS facility (B142) including addition of 2,500 SF administrative and training space to better serve unit.

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

Michigan ARNG Design & Renovation of 8 Facilities at Ft. Custer, Camp Grayling, Grayling Army Airfield and Midland, MI – Civil Engineer. Architectural and engineering design for 8 "fast track" projects for Michigan Army National Guard scattered throughout state, including: new Bachelor Officer Quarters at Fort Custer, Camp Grayling and Grayling AAF; addition to Range Control Building and new Logistics Facility at Fort Custer; new General Officers BOQ at Camp Grayling; new Company Operations Facility at Grayling AAF; and kitchen and other renovations to existing armory in Midland that required lead and asbestos abatement. Completed design, permitting, and master planning for future expansion and/or facilities in 10 weeks, in time to meeting funding deadlines for bid advertisements.

Blue Grass Army Depot Visitor Control Center and Battlefield Memorial Highway Revisions, Richmond, KY – Civil Engineer. Design and construction administration services for design-build project at main visitor control center (VCC). Revisions involved removing, closing, and relocating VCC to current parking lot entrance, as well as widening and providing KYTC-required improvements, such as new traffic signals, warning signals, and revised signage to U.S. 421 at new entrance. VCC structures, signage, fencing, utilities, pavement, and pedestrian facilities improvements were also included.

Robert G. Belcher, P.E.

Senior Vice President
Project Officer

Years of Experience: 40
Years with Chapman: 37

Education
B.S., Civil Engineering, 1983, West Virginia Institute of Technology

Registration
Civil Engineer: WV, OH, VA

Affiliations
WV Water Environment Association

Contractor's Association of WV

WV American Water Works Association

WV Society of Professional Engineers

WV American Council of Engineering Companies

WVUIT Civil Engineering Advisory Board

WV Qualifications Based Selection Council

Awards
George Warren Fuller Award, 2001

Experience

Water Systems
Design and project management for numerous water systems for both public and private water companies. Projects include new water treatment plants as large as 6.0 MGD, improvements to existing plants, water mains and distribution systems. Water storage projects include glass-lined steel tanks, welded high-strength steel tanks, elevated pedestal tanks, and pre-stressed concrete tanks.

Wastewater Systems
Design and project management for numerous wastewater systems throughout West Virginia. Projects include new, secondary and tertiary wastewater treatment plants as large as 4.5 MGD, improvements to existing plants, small-flow treatment plants, new and rehabilitation of wastewater collection systems, CSO compiance, SSES Reports and I/I Studies, and facility plan updates.

Miscellaneous
Design and project management for large highway and bridge projects, airport improvements projects, large stormwater management projects including assistance with MS4 compliance, as well as potable water and wastewater system design for site development projects throughout West Virginia, and Virginia.

Recent Relevant Experience
St. Albans MS4 Stormwater Management Plan Update; St. Albans, WV
St. Albans MS4 Stormwater Repairs; St Albans, WV
City of Ashland Oakview Road Culvert Replacement; Ashland, KY
City of Lewisburg Dogwood Heights Culvert Replacement; Lewisburg, WV
City of Lewisburg Comprehensive Stormwater Report; Lewisburg, WV

YEARS OF EXPERIENCE:
With GRW: 35
Total: 41

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

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

National Council of Architectural Registration Boards (NCARB) Certification

LEED Accredited Professional, Building Design + Construction

Certified Interior Designer: Kentucky

PROFESSIONAL AFFILIATIONS AND TRAINING
American Institute of Architects

Past President - AIA East Kentucky Chapter Board of Directors

American Correctional Association (ACA)

Member / Past Officer - UK College of Architecture Alumni Association

Life Member - UK Alumni Association

Shane Lyle, AIA, LEED AP BD+C

Sr. Vice President / GRW Client Manager

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

RELEVANT PROJECT EXPERIENCE

West Virginia ARNG JFHQ TAG Wing Renovation, Charleston, WV – Project Manager. Work for 7,200 SF facility includes renovations of office areas, complete restroom renovations, and new interior LED lighting.

West Virginia ARNG Buckhannon Readiness Center Phase II Commissioning, Buckhannon, WV – Architect. Provided commissioning services during design, construction, and post-construction for the Phase 2 addition of Buckhannon Readiness Center.

West Virginia ARNG Martinsburg Secure Facility, Martinsburg, WV – Project Manager. Renovations to 2-story area (6,200 SF per level) to provide new secure office space and related support spaces for specific using agency. Includes HVAC replacement; new DDC control system for all new equipment, new interior finishes (including raised access flooring), structural roof deck and roofing system, elevator and fire stairs, building security and cameras, and site security fencing, sliding vehicular security gates, exterior parking; and site utility and storm drainage improvements.

West Virginia ARNG Camp Dawson Volkstone Training Area Utility Upgrade, Kingwood, WV – Principal. Expansion of sewer (1,996 LF), water (1,996 LF) and electric (1,797 LF) to all existing and future buildings, unit training equipment site (UTES) and wash rack locations. Also included design of Forward Operating Base (FOB) including 20 14' x 16' wooden buildings, new bath house for approximately 200 people and pavilion.

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

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

YEARS OF EXPERIENCE:
With GRW: 2
Total: 15

EDUCATION
B.S., Mining Engineering, 2010, University of Kentucky

REGISTRATION
Professional Engineer: KY, VA, WV, OH

PROFESSIONAL AFFILIATIONS AND TRAINING
KYTC Complete Streets, Roads, and Highways Manual Training (10/27/23)

Seth Mittle, PE

GRW Project Manager

RELEVANT PROJECT EXPERIENCE

Lewisburg Storm Water Management Study, Lewisburg, WV – Project Manager. Engineering services to complete a comprehensive storm water management study including field survey & data collection, watershed modeling & analysis.

Sanitation District No. 1 Maple and Lytle Storm Water Improvements, Newport, KY – Project Manager. Design and construction phase services for improvements to the current undersized storm sewer and drainage system at the intersection of Maple and Lytle Drives in the City of Elsmere. The drainage area is approximately 77 acres and storm water quickly exceeds the capacity of the existing storm system.

Sanitation District No. 1 Carol Drive Storm Water Improvements, Taylor Mill, KY – Project Manager. Engineering, bidding, and construction administration services for a storm water improvements project in an area where flooding events are frequent in the project area and the current storm infrastructure is inadequate. The goal is to convey the 25-year, 24-hour storm through the project area while diverting the storm water flow with two new detention ponds and maintaining existing storm water controls.

Glasgow Village Circle Storm Water Project, Glasgow, KY – Project Manager. To alleviate backlot drainage issues from swale that runs near area of 101 and 111 Village Circle, completed storm water modeling, cost estimate, and an erosion control plan/BMP, as well as the design of over 1,400 LF of storm sewer ranging in sizes from 12”- 24”.

Ravenna Storm Water Improvements, Ravenna, KY – Project Engineer. Preliminary engineering report and identification of solutions to persistent flooding problems related to runoff from the hillside north of town, as well as design for two (west and east) storm sewer networks involving over 5,000 linear feet of pipe and 74 new storm structures with enough capacity for a 25-year rainfall. Evaluation of 62-acre watershed was included, as well as services to obtain easements and grant funding assistance.

Village of Seven Mile Storm Water System Study, Village of Seven Mile, OH – Project Manager. Engineering services including storm water modeling to complete a study and recommend improvement alternatives for a portion of the community's storm water system, which experiences flooding during rain events, affecting private properties and possible future development.

NYRA Belmont Park Tunnel & Infield Access & Storm Water/Drainage Management, Elmont, NY – Project Engineer. As part of large infield access project, providing design and construction services for three, 18- to 30-feet below grade, 500-foot tunnels, including access ramps with new storm sewers for each. Storm water management system for additional runoff has new triplex storm water pump station and force main, as well as underground storm water detention system to hold up to 50-year rainfall event. Storm water system has approximately 30 miles of pipe and 216,000 cubic feet of underground detention storage

Robert C. Denzie, P.E
Civil Engineer

Years of Experience: 10
Years with Chapman: 10

Education
B.S., Civil Engineering, 2014
Marshall University

Registration
Professional Engineer: WV

Affiliations
Member, American Water Works Association Member, Water Environment Federation

Experience

Water Systems
Overall experience includes planning and design of various public water system projects throughout West Virginia. Specific project experience includes distribution system design, treatment plant design, existing system analysis, construction management, and observation.

Wastewater Systems
Overall experience includes design of various public wastewater system projects throughout West Virginia. Specific project experience includes design of gravity and force main transmission systems, lift stations, and existing system rehabilitation.

Storm Water Systems
Overall experience includes planning and design of various public and private stormwater system projects throughout West Virginia. Specific project experience includes, stormwater collection system design and stormwater management plan preparation.

Recent Relevant Experience
Piedmont Storage Units, Stormwater Design; Huntington, WV
Meadow River Trail, Stormwater Design; Greenbrier County, WV
Clear Fork Trail, Stormwater Design; Raleigh County, WV
Gyandotte Boat Ramp, Stormwater Design; Huntington, WV
St, Albans Boat Ramp and Dock, Stormwater Design, St. Albans, WV
WV State Capitol East Campus, Stormwater Design; Charleston, WV

Roger Kennedy, ASLA
Landscape Architect

Years of Experience: 35
Years with Chapman: 34

Education
B.S., Landscape Architecture, 1990
West Virginia University

Registration
Landscape Architect: WV, KY

Affiliations
Member, WV Chapter, American Society of Landscape Architects

Member, St. Albans Rotary

Scoutmaster, Scouts BSA Troop 146

Member, Sigma Lambda Alpha Honor Society of Landscape Architects

Awards
WV Division of Highways Engineering Excellence:
WV Route 10
2011, 2000
Corridor H
2013

Experience

Roger has a very diverse professional background, having been involved in parks and recreation projects, highway design, stormwater management, and trail and streetscape design. Other experience includes the use of various civil design software packages for use in site development and road design, digital terrain modeling, hydraulic analysis and related computer aided design tools, as well as the development and management of the computing resources of the company.

Stormwater Planning and Design
Responsible for the planning and design of stormwater management including retention and detention systems for a variety of facilities from minor park lots to major office and industrial complexes and other public facilities.

Site Design and Land Development
Responsibilities include grading design, site planning and layout, analysis of existing features and services, storm water design and management, erosion control, as well as project management. Projects include streets and sidewalks, trails, military complexes, banks, airports, subdivisions, boating facilities, fueling stations and other public facilities.

Recreation Design and Master Planning
Projects include pedestrian and multi-use trails; waterfront development; fishing and boating facilities; ski developments; sports fields;

Recent Relevant Experience
Meadow River Trail; Greenbrier County, WV
Clear Fork Trail; Raleigh County, WV
Lewisburg Sidewalk Projects; Lewisburg, WV
Guyandotte Boat Ramp; Huntington, WV
Winfield Boat Ramp; Winfield, WV
St. Albans Boat Ramp and Dock; St. Albans, WV
WV State Capitol East Campus; Charleston, WV
Pollard Mills Sidewalk Project; Ashland, KY
Civil War Trail; Lewisburg, WV
Church and Court Streets Traffic Calming Plan; Lewisburg, WV
Lewisburg Comprehensive Stormwater Report; Lewisburg, WV

Allen Lentz, EIT

GRW Civil Engineer

YEARS OF EXPERIENCE:
With GRW: <1
Total: 3

EDUCATION
B.S., Environmental Engineering, 2010, Colorado State University

REGISTRATION
Kentucky EIT

PROFESSIONAL AFFILIATIONS AND TRAINING
OSHA 10-hour Construction Safety & Health

KYPipe Basic & Advanced Training

Remote Pilot License (Drone Topographic Surveys & Aerial Photos)

RELEVANT PROJECT EXPERIENCE

Lewisburg Storm Water Management Study, Lewisburg, WV – Project Engineer. Engineering services to complete a comprehensive storm water management study including field survey & data collection, watershed modeling & analysis.

Sanitation District No. 1 Carol Drive Storm Water Improvements, , – Project Engineer. Engineering, bidding, and construction administration services for a storm water improvements project in an area where flooding events are frequent in the project area and the current storm infrastructure is inadequate. The goal is to convey the 25-year, 24-hour storm through the project area while diverting the storm water flow with two new detention ponds and maintaining existing storm water controls.

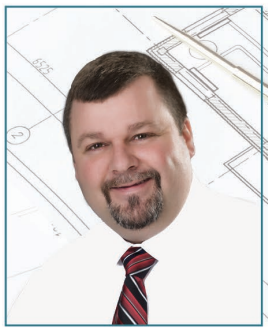
Sanitation District No. 1 Maple and Lytle Storm Water Improvements, Newport, KY – Project Engineer. Design and construction phase services for improvements to the current undersized storm sewer and drainage system at the intersection of Maple and Lytle Drives in the City of Elsmere. The drainage area is approximately 77 acres and storm water quickly exceeds the capacity of the existing storm system.

Storm Water System Study, Village of Seven Mile, OH – Project Engineer. Engineering services including storm water modeling to complete a study and recommend improvement alternatives for a portion of the community's storm water system, which is experiencing flooding during rain events, affecting private properties and possible future development.

Kenton County School District Transportation & District Support Facility, Fort Wright, KY – Project Engineer. New approximately 80,578 SF transportation and support facility to support staff and operations for these critical district functions: transportation, maintenance, technology, and support operations.

Lexington Police Training Academy Feasibility Study, Lexington, KY – Project Engineer. Architecture-led feasibility study for a building being considered for use as a police training academy. Included is a site assessment, as well as feasibility of program and constructability, and final recommendations, executive summary, and project costs/ budget.

Kentucky Fish & Wildlife Statewide Rifle Range Retrofit and Improvements, Frankfort, KY – Project Engineer. Engineering services related to proposed tube retrofit and improvements at rifle ranges based on review of a pilot range. Services include discussion of project goals and timelines, as well as a comprehensive review of agency documents for each range, including drawings and budget information. Included are topographic survey, preparation of construction estimates, drawings and specifications. Design includes focus on basic baffle and canopy configurations at the firing line.



Jason Brown, P.S.
Professional Surveyor

Years of Experience: 28
Years with Chapman: 13

Education
A.S., Land Surveying, 2002
Glenville State College, WV

Registration
Professional Surveyor: WV, KY, VA, PA

Affiliations
WV Society of Professional Surveyors

Experience

Jason leads the Chapman Technical Group survey team and is experienced in topographical and boundary surveys, as well as flood plain mapping, ALTA surveys, and construction layout. Jason also coordinates aerial mapping and LiDAR services with GRW, the parent company of Chapman Technical Group.

Highways
Established control, site surveying, topographic surveying, courthouse research, drawing production, Right-of-Way Questionnaires, bore hole stake out, and all surveying associated with the initial and final design of WV highways.

Site Development
Experienced in all types of surveying associated with site development, to include control, topographic boundaries, research, and drawing production. Projects include military complexes, public housing, commercial development, industrial and institutional complexes, churches, resorts and public facilities throughout the state.

Schools
Associated surveying for new schools, additions, athletic fields, and sidewalks projects.

Parks and Recreation
Associated surveying for projects including swimming pools, bathhouses, cabins and support facilities for the West Virginia Division of Natural Resources and similar facilities for county and municipal park systems.

Water/Wastewater/Stormwater Systems
Associated surveying for the design of water systems, sanitary sewer systems, and stormwater systems, including treatment facilities for both private and public systems throughout the state. Also, field experience in the inventory and collection of attribute data using GPS equipment for uploading to GIS databases.

SECTION 4.0 | Approach & Methodology for Meeting Goals & Objectives

4.0 Approach & Methodology for Meeting Goals & Objectives

The West Virginia Department of Administration along with the West Virginia Army National Guard are embarking on an important project at the Joint Force Headquarters' (JFHQ) Coonskin Complex to address the design/re-design of the storm water drainage system. It is an important project because it will provide better support for the needs of the soldiers, airmen and civilians utilizing the facility.

We understand your current goals and objectives for this project include:

- Develop construction documents containing a storm water drainage plan for the WVANG Base
- Mitigate improper storm water drainage
- Eliminate runoff and erosion issues
- Complete civil site design ready for bid
- Prepare drawings and specifications
- Investigate and identify existing utilities
- Provide bid services
- Provide construction administrative services

We also understand we will be responsible for:

- Providing energy efficient, economical, construction and maintenance friendly plans
- Multiphase submittal including 35%, 65%, 95%, and 100%
- Provie cost estimates with each submittal

An Approach Based on Respect & Clarity

Our approach to accomplishing these goals and objectives for your project is straightforward:
1) assemble the best and brightest design talent with knowledge of the national guard/military projects;
2) bring an open mind and fresh perspectives; and
3) remain accountable to you throughout the process for cost control/budget.

The cornerstone of the GRW design approach is collaboration, which we believe is key to our relationship with you. Communicating in an open dialog helps to vest everyone in the project's success and is a prerequisite to ensuring buy-in from all.

A Project Team You Can Count On

Our assigned project manager is key to our approach.

Leading you and our team as our project manager will be GRW's Storm Water Market Lead, **Seth Mittle**. With 15 years of experience, Seth has managed a variety of civil, environmental, and mining engineering projects. He has managed and provided engineering design, specifications, modeling for numerous floodplain and floodway analysis, and letter of map revisions for FEMA. He has been responsible for managing and assisting in projects involving reclamation and mitigation for acid mine drainage, Phase I Environmental Site Assessments, stream bank erosion mitigation, mineral reserve classification, mine planning, sediment transport modeling, and landfill life estimates. Seth has developed and updated numerous Spill Prevention, Control and Countermeasure Plans and similar constituent-control and mitigation documents. In addition, he has broad experience in environmental compliance, storm water, and groundwater pollution prevention and protection plans. We believe you will find him a knowledgeable engineer, skilled leader, and a valuable partner throughout your upcoming project.

Closely supporting Seth will be civil engineer **Robert Denzie** and landscape architect, **Roger Kennedy.** Both will assist with all investigation and design aspects of the project. **Allen Lentz** will provide engineering design to ensure efficiency, effectiveness, and permitting of the storm water systems.

Our in-house surveyor, **Jason Brown,** and survey team are prepared to offer the support needed for any required planning and design.

Project Goals & Objectives

GRW is familiar with the project goals and objectives as provided in the JFHQ Coonskin Complex Storm Water Drainage Design RFQ. The following approach is a summary of GRW's proposed scope of services including our design approach. We understand that our design approach should include consideration of energy efficient, economically sound, and low-maintenance equipment and appurtenances. GRW offers a company history of nearly 60 years of experience in working on storm water projects, and our engineering staff specializes in working on the design and retrofit of storm water infrastructure in West Virginia.

Review Existing Information

Upon receiving notice to proceed, GRW will set up a kickoff meeting and site visit with the WVARNG Project Manager. GRW will utilize this meeting to review existing information, discuss previous studies, take photos, identify potential conflicts at the site, and talk to WVARNG personnel about the proposed alignment and sizing requirements for the project.

To provide a detailed set of plans for the project, GRW will request the following information from WVARNG (if available):

1. Record drawings of the existing storm water infrastructure, alignment issues and existing easements.
2. GIS Data relevant to the project.
3. WVARNGs proposed storm water needs, preliminary alignments and any available modeling files.
4. Known utility conflicts –GRW staff will follow up with relevant utility companies to verify and request record drawings of existing utilities.

Project Area Survey

GRW will complete a topographic survey of the site and perform all the survey services identified in the RFQ. Based on the outcome of this work, we will collaborate with WVARNG staff to determine the initial alignment of new storm water sewers, detention basins, and appurtenances as necessary. A topographic survey will be performed on the sewer main corridors with data being collected on all existing features and utilities within a fifty (50) foot corridor of the future alignments and existing sewer piping. The survey will include a 2-foot contour interval digital mapping terrain model to generate spot elevation data for project design. The survey will verify roadway centerlines and edge of pavement, including the invert and structure data for all sanitary and storm infrastructure within the survey limits. GRW will provide an electronic .DWG and .PDF file to WVARNG upon completion of survey activities.

35% Design (Prelim. Design Memorandum)

The 35% design phase will focus on constructability, property impacts, permitting requirements, and project costs. Scour and other environmental impacts at the downstream end of the improvements will be considered when preparing permit documents. When analyzing the proposed construction corridor, GRW will also address utility conflicts, street crossings, and number of easements required.

A Preliminary Design Memorandum, 22' X 34' Plan View drawings showing the primary alignments, and preliminary opinions of cost (Class 3) will be developed. These documents, along with the survey data will be delivered to WVARNG as part of the 35% design. Feasibility of the proposed alignment(s), detailed costs, projected project schedule, identification of issues, and summary of decisions will be provided before proceeding with 65% design of the selected route.

Storm Water Modeling

GRW will review any provided storm water hydraulic and hydrologic (H&H) model that has been previously conducted. We will verify that the hydraulic grade lines still meet applicable Storm Water Rules and Regulations (federal or state) using the surveyed elevations. Impervious areas, topographic changes, and detention capacities will also be refined.

During the 35% design process GRW will use H&H model results and associated capacity calculations to recommend new or resized storm water storage and

conveyance elements and associated appurtenances in the project area. The storm sewer storage and conveyance system will be upsized to safely pass a stipulated storm event which will be determined after discussion with the WVARNG Project Manager.

In addition to storing and conveying the design storm safely, the outfall at the downstream area will be surveyed and evaluated to handle the discharge volumes while minimizing scour effects from the discharge point.

If it is determined that by increasing the efficiency of the storm sewer system, areas downstream of the site become inundated, size increases to any proposed detention basins or downstream conveyance system will be evaluated, provided they can be designed and constructed in a cost-effective manner.

Geotechnical Services

During the 35% design process, we will use the information collected during previous geotechnical investigations and the development plans for the neighborhood, if available, to document potential geotechnical hazards along the conceptual alignments noted in the RFQ.

As the design of the storm water infrastructure progresses, the results of the geotechnical investigations will be used to refine the route and detention basin locations, verify constructability, and guide the selection of construction for the project. Proposed borings will be supplemented with historical information gathered during this project.

All geotechnical design required to stabilize slopes, protect trenches, protect the outfall and area downstream of the discharge point, and provide for safety requirements shall be performed under the direction of GRW and our geotechnical subconsultant.

65% Design

Using WVARNG and utility input during the 35% design review, GRW will revise the preferred location and alignment plan and profile drawings for the storm water infrastructure.

Before proceeding with 65% design of a selected route and construction method, each of the potential geotechnical hazards will be addressed and construction methodology established. GRW prefers to identify budget and constructability issues early in the project and address each prior to completing final design.

Working with WVARNG staff to select a preferred alignment, GRW will then refine the initial survey as required for the selected route, conduct any further geotechnical investigations, and supplement environmental assessments along the preferred route as necessary.

Prior to submittal of the 65% design submittal, a technical review and constructability review will be completed by a senior member of the design team and will be submitted as part of the 65% design submittal package. Utilizing our technical specifications and standard details, GRW will provide a 65% design that conforms to the requirements listed in the RFQ.

The 65% design drawings will be provided to local utilities for review and comment on any potential conflicts. GRW will provide WVARNG with design drawings and specifications and an opinion of probable construction cost (Class 2) as a part of the 65% design submittal package.

Two weeks after submittal of the 65% design deliverables, a review meeting will be scheduled with WVARNG staff to review the 65% design.

Easement Acquisition Assistance

Once the final alignment surveys are complete, GRW will create easement exhibits and descriptions for each property being encroached upon by the proposed storm water infrastructure alignment including access to basins, manholes, and discharge points to allow future maintenance activities. GRW understands the importance of obtaining the exhibits and descriptions as early as possible to expedite the acquisition and maintain schedule on the project. We will provide WVARNG with exhibits and descriptions so that the process of speaking to property owners about permanent easement, temporary easement, access locations, and staging

areas can begin. Throughout the easement acquisition process, GRW will work closely with WVARNG to make reasonable modifications to the plans to meet property owners' requests.

Permitting

After the 65% design submittal, GRW will begin the process of completing applications for permits. We anticipate that the project may require the following permits: WV DEP Construction Storm Water General Permit, Department of the Army Permit from U.S. Army Corps of Engineers, USFWS Permits, and local and WVARNG permits.

After completion of the 65% design, a Storm Water Pollution Prevention Plan (SWPPP) will be prepared. GRW will incorporate Erosion and Sediment Control features and Best Management Practices in the construction drawings and specifications.

95% Design

During 95% design, GRW will continue to refine the plan and profile drawings using available information from the permitting and easement acquisition processes, and input from WVARNG. Prior to submittal of 95% design, a technical review and constructability review will be completed by a senior member of the design team.

Our 95% design will include plan and profile drawings, detail sheets, a traffic control plan, an erosion and sediment control plan, general notes, and bid items, measurement and payment, and technical specifications. GRW will provide WVARNG with drawings and specifications and an opinion of probable construction cost (Class 1) as a part of the 95% design submittal package.

Two weeks after submittal of the 95% design deliverables, a review meeting will be scheduled with WVARNG staff to review the 95% design.

100% Design

During the 100% design phase, final revisions will be made to plans and specifications prior to bidding. The opinion of probable construction cost will also be revised to reflect any final changes prior to bidding.

GRW will provide WVARNG with design drawings and specifications and an opinion of probable construction cost (Class 1) as a part of the 100% design submittal package. Our final design will include plan and profile drawings, detail sheets, a traffic control plan, an erosion and sediment control plan, general notes, and bid items, measurement and payment, and technical specifications.

Bid Assistance

During the advertisement for construction bids, GRW will prepare for, coordinate, and attend a pre-bid meeting. GRW will answer all bidder questions in a timely manner and prepare written responses for submittal to the WVARNG procurement administrator.

If required, GRW will assist WVARNG with the preparation of up to (3) addenda for plan and specification clarification. GRW will review all bids received for irregularities or unbalanced bid items.

After the bid opening and award of the project, GRW will prepare conformed plans and specifications, including all addenda items and signed contracts. GRW will provide up to five (5) copies of full-size plans and specifications and one (1) electronic copy (PDF) to WVARNG.

Submittal Review

GRW will review all submittals for up to three (3) review cycles during construction and will maintain a submittal log to track the reviews of up to ten (10) submittals.

Construction Administration

Once WVARNG has awarded the construction contract, GRW will prepare for, coordinate, and attend a pre-construction meeting. GRW will provide the contractor with instructions for submitting proposed materials and will review submittals within a timely manner GRW will assist the contractor in submitting the WV DEP Construction Storm Water General Permit using WV DEPs ESS system.

GRW will prepare for, coordinate, and attend monthly progress meetings for the duration of construction. Our survey crew will provide the initial

construction layout for use by the selected contractor. GRW will respond to RFI's and provide construction submittal review and approval. Finally, GRW will work with WVARNG to address and issue change orders and will complete project close out activities.

Record Drawings

GRW will prepare for, coordinate, and attend monthly progress meetings for the duration of construction. Our survey crew will provide the initial construction layout for use by the selected contractor. GRW will respond to RFI's and provide construction submittal review and approval. Finally, GRW will work with WVARNG to address and issue change orders and will complete project close out activities.

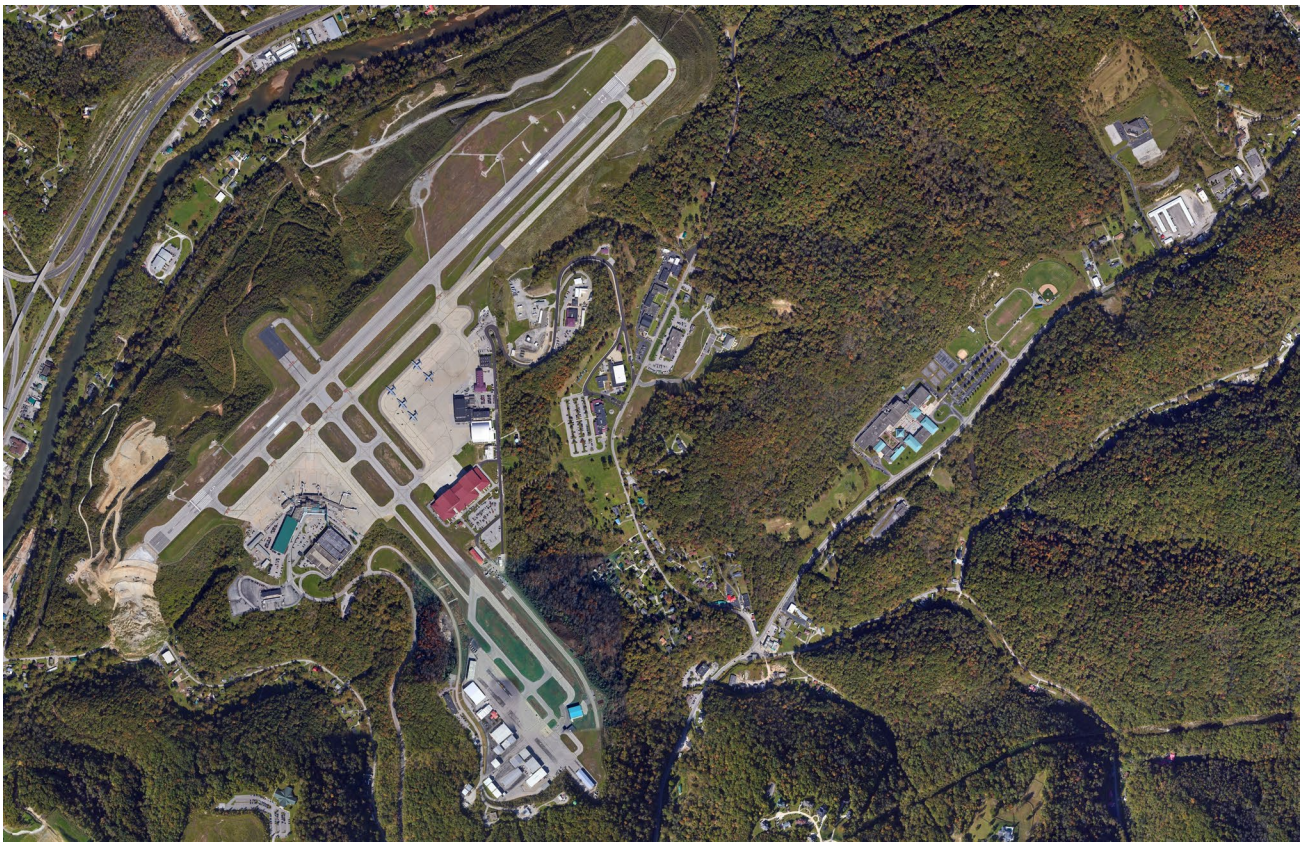
Following substantial completion of construction, GRW will conduct a record survey of the completed construction assets. Using the record survey and the contractor's red-lined drawings, GRW will prepare and submit record drawings to WVARNG reflecting as-built field conditions of the new sewer.

GRW will provide two (2) electronic versions of the as-built record drawings (CAD and PDF).

Management Approach

Our project planning and organizational approach to assuring completion of multiple tasks is based on the centralized development of uniform procedures. This approach assures consistency in the conduct of multiple activities. The elements of this project planning and organization approach include:

- Establishment of clear lines of project team responsibility and authority.
- Establishment of clear lines of project team communication.
- Development and dissemination of project-wide procedures for implementation at individual task levels.
- Development and dissemination of procedures for cost and schedule control.
- Establishment and implementation of a Total Quality Management program.
- Establishment of the project management and technical staffing requirements.



SECTION 5.0 | Project Management & Quality/Cost Control

5.0 Project Management & Quality/Cost Control

Project Management

Our straightforward approach continues throughout the management of the entire project.

Design Submittals | 35% & 65%

Using the information from the Kickoff and analysis of existing conditions, we continue through the 35% phase – and move into the 65% design phase. At this time we present the **preliminary design** concept to you through the use of drawings, written narratives and an initial cost estimate. After your review of the submittal, we will meet together to go over the design review comments, review the budget, and document any desired revisions. We will repeat this process as needed to reach an acceptable solution that meets your goals and budget.

We will also discuss potential construction phasing opportunities, if/as needed. We will document each step of the process with thorough meeting minutes.

Design Dev., Pre-final & Final Construction Documents |95% & 100%

Using the approved **preliminary design** documents, the design team will proceed with **design development** docs which likewise, are issued for Owner/User review and approval before proceeding to **pre-final construction documents** and completion of final construction documents for bidding.

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

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

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

Construction Bid Services | Construction Phase

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

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

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

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

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

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

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

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

Changes

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

Flexibility

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

Quality & Cost Control

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

Quality Control

Seth Mittle, Project Manager, has primary responsibility for the daily management and coordination of the project team. With over 40 years of experience, he has a clear understanding of the most effective methods for maintaining the programming, planning, and design schedule.

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

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

A key element in effective Quality Assurance/Quality Control (QA/QC) is the use of regularly scheduled progress meetings. A kickoff meeting between key members of GRW's proposed project team and your management and staff will be held to ensure a common understanding of the goals and objectives among all project partners. These issues will be reviewed and the work plan will be discussed in detail. Lines of communication and coordination will be established. Regular meetings will be scheduled throughout the project to report on project progress and review technical issues. These meetings provide a forum for discussing concerns and ideas. The assigned Project Manager is the primary conduit for communication between you and the design team.

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

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

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

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

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

Cost Control

PROJECT BUDGET ACCOUNTABILITY: Government officials are accountable to the public for the expenditure of public monies. The GRW team understands this obligation and develops a project design that is cost-effective and delivers an efficient and appropriate use of funds assigned to the military. Rarely do projects have sufficient budget to accommodate everything on the programmatic *wish list*. Reconciling the program against the project budget is done early and often in order to guide the project to a successful conclusion. GRW approaches this process in a pragmatic and open manner. This subject will be on the agenda of every project meeting we have with you for open and frank discussion so that everyone is kept abreast of any potential concerns. Prioritizing the program relative to the budget can be a difficult task, with different stakeholders sometimes at odds over how to resolve differences of opinion. GRW excels at guiding this process and helping you to resolve these differences.

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

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

GRW provided design and construction phase services for the WV ANG's 130th Airlift Wing Building 107 Renovation.

With a construction budget of $5M, the awarded bid was $4,941,290, and the final construction cost was $4,991,876 (within 1% of awarded bid).

SECTION 6.0 | References

6.0 References

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

West Virginia Army National Guard

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

Matthew T. Reynolds
(304) 561-6568c
matthew.t.reynolds18nfg@mail.mil

West Virginia Air National Guard

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

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

West Virginia, Department of Administration

Timothy Lee, Building Engineer
General Services Division
(304) 352-5536
timothy.m.lee@wv.gov

Federal Bureau of Prisons

Judah Organic, Design Compliance Programs Manager
(202) 514-9566
jorganic@bop.gov

Frankfort Plant Board

David Billings, Director of Water Operations
(502) 352-4468
dbillings@fewpb.com

SECTION 7.0 | West Virginia EOI Forms

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

State of West Virginia
Centralized Expression of Interest

Proc Folder: 1478285			**Reason for Modification:**
Doc Description: JFHQ Coonskin Complex Storm Water Drainage Design EOI			
Proc Type: Central Purchase Order			
Date Issued	**Solicitation Closes**	**Solicitation No**	**Version**
2024-07-30	2024-08-13 13:30	CEOI 0603 ADJ2500000001	1

BID RECEIVING LOCATION

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

VENDOR

Vendor Customer Code: 000000218570
Vendor Name : GRW Engineers, Inc.
Address : 801 Corporate Drive
Street :
City : Lexington
State : Kentucky **Country :** USA **Zip :** 40503
Principal Contact : Seth Mittle, PE
Vendor Contact Phone: (859) 880-2257 **Extension:**

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

Vendor Signature X  **FEIN#** 61-0665036 **DATE** 08/13/2024

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

ADDITIONAL INFORMATION

The West Virginia Purchasing Division, for the agency, the West Virginia Army National Guard, Construction and Facilities Management Office, is soliciting Expressions of Interest from qualified firms to provide professional architectural and engineering design services to develop construction documents for the construction of a storm water drainage plan at the WV Army National Guard Base (Coonskin Complex), located in Charleston, Kanawha County, WV, per the attached documentation.

INVOICE TO	SHIP TO
ADJUTANT GENERALS OFFICE 1707 COONSKIN DR CHARLESTON WV 25311 US	ADJUTANT GENERALS OFFICE 1703 COONSKIN DR CHARLESTON WV 25311-1085 US

Line	Comm Ln Desc	Qty	Unit Issue
1	JFHQ Coonskin Complex Storm Water Drainage Design EOI		

Comm Code	Manufacturer	Specification	Model #
81101508			

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

SCHEDULE OF EVENTS

Line	Event	Event Date

	Document Phase	Document Description	Page 3
ADJ2500000001	Final	JFHQ Coonskin Complex Storm Water Drainage Design EOI	

ADDITIONAL TERMS AND CONDITIONS

See attached document(s) for additional Terms and Conditions

ADDITIONAL TERMS AND CONDITIONS
(Architectural and Engineering Contracts Only)

1. PLAN AND DRAWING DISTRIBUTION: All plans and drawings must be completed and available for distribution at least five business days prior to a scheduled pre-bid meeting for the construction or other work related to the plans and drawings.

2. PROJECT ADDENDA REQUIREMENTS: The Architect/Engineer and/or Agency shall be required to abide by the following schedule in issuing construction project addenda. The Architect/Engineer shall prepare any addendum materials for which it is responsible, and a list of all vendors that have obtained drawings and specifications for the project. The Architect/Engineer shall then send a copy of the addendum materials and the list of vendors to the State Agency for which the contract is issued to allow the Agency to make any necessary modifications. The addendum and list shall then be forwarded to the Purchasing Division buyer by the Agency. The Purchasing Division buyer shall send the addendum to all interested vendors and, if necessary, extend the bid opening date. Any addendum should be received by the Purchasing Division at least fourteen (14) days prior to the bid opening date.

3. PRE-BID MEETING RESPONSIBILITIES: The Architect/Engineer shall be available to attend any pre-bid meeting for the construction or other work resulting from the plans, drawings, or specifications prepared by the Architect/Engineer.

4. AIA DOCUMENTS: All construction contracts that will be completed in conjunction with architectural services procured under Chapter 5G of the West Virginia Code will be governed by the attached AIA documents, as amended by the Supplementary Conditions for the State of West Virginia, in addition to the terms and conditions contained herein. The terms and conditions of this document shall prevail over anything contained in the AIA Documents or the Supplementary Conditions.

5. GREEN BUILDINGS MINIMUM ENERGY STANDARDS: In accordance with West Virginia Code § 22-29-4, all new building construction projects of public agencies that have not entered the schematic design phase prior to July 1, 2012, or any building construction project receiving state grant funds and appropriations, including public schools, that have not entered the schematic design phase prior to July1, 2012, shall be designed and constructed complying with the ICC International Energy Conservation Code, adopted by the State Fire Commission, and the ANSI/ASHRAE/IESNA Standard 90.1-2007: Provided, That if any construction project has a commitment of federal funds to pay for a portion of such project, this provision shall only apply to the extent such standards are consistent with the federal standards.

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

(Printed Name and Title) Seth Mittle, PE

(Address) 801 Corporate Drive, Lexington, KY 40503

(Phone Number) / (Fax Number) (859) 880-2257 / (859) 223-8917

(email address) smittle@grwinc.com

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

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

GRW Engineers, Inc.

(Company)

(Signature of Authorized Representative)

Seth Mittle, PE, Storm Water Market Lead

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

(859) 880-2257 / (859) 223-8917

(Phone Number) (Fax Number)

smittle@grwinc.com

(Email Address)