



## ENGINEERING SERVICES FOR VARIOUS PROJECTS AND ON CALL SERVICES



OCTOBER 17, 2022

### Submitted To:

Municipal Association of South Carolina  
P. O. Box 12109  
Columbia, South Carolina 29211  
Attention: Jake Broom, Chief Operating Officer

Via email to [jbroom@masc.sc](mailto:jbroom@masc.sc)

### Submitted By:

Keck & Wood, Inc.  
300 Technology Center Way  
Suite 400  
Rock Hill, South Carolina 29730

<b>COVER</b>	<b>excluded</b>
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October 17, 2022

Municipal Association of South Carolina  
P. O. Box 12109  
Columbia, South Carolina 29211

Attention: Jake Broom, Chief Operating Officer

Re: Engineering Services for Various Projects and On-Call Services

Dear Mr. Broom and the Selection Committee:

Providing local governments with reliable water & sewer service to improve the quality of life and spur economic development is a demanding mission that requires people who are dedicated to serving citizens, and a team of dependable consultants to provide unparalleled support. We are dedicated to providing professional services to serve the citizens of South Carolina through the continual operation of statewide water & sewer systems. We are the right choice for MASC's ARPA On-Call Engineering Services consultant list based on the following criteria.

**Funding Experience** - Through hands-on experience coordinating projects with many different local, state & federal providers, Keck & Wood (KW) has established itself as one of the most knowledgeable and proficient grant consulting firms in the Southeast. We possess all the engineering, survey, and planning staff needed for South Carolina's ARPA projects, operating under a single company umbrella. ***KW's team approach significantly improves the continuity and effectiveness of the grant process which applies more funds to the actual project.***

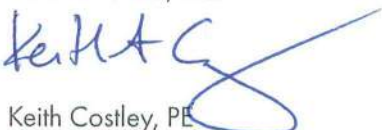
**In-House Experience** - Analyzing each project area will require the keen eye and knowledge of experienced engineers. The KW team brings more than 68 years of leadership in water & sewer projects. This experience will provide knowledgeable answers based on factual on-site study coupled with our expansive knowledge of SC regulations. All design work will be completed by KW's SC staff of professionals. ***With offices located in both Rock Hill and North Charleston, KW is well positioned to provide the SC local governments with hands-on communication and quality throughout each project.***

**Personal Expertise & Care** - The dedicated Project Managers will be Paul Smith, PE for Pee Dee & Lowcountry and Daniel Wallace, PE for Midlands & Upstate. As longtime SC residents, both Paul & Daniel have been providing water & sewer infrastructure improvements throughout the State for 20+ years. Projects have ranged from waterline replacements to complex WWTP upgrades. ***KW's Project Managers are passionate about improving the quality of life in and around the SC communities where they live, work, and play through community involvement and infrastructure improvements.***

**Longstanding Relationships** - KW has been providing professional consulting services throughout South Carolina since 1960. For 50+ years, we have been providing on-call engineering services for the City of Rock Hill. Additionally, we have been serving numerous local governments throughout the State for 15+ years, including the Cities of York & Greer and Towns of Heath Springs & Fort Mill. ***KW values its longstanding client relationships and prides itself on being a trusted advisor for local governments throughout SC.***

We are qualified to provide all services listed in the Scope of Work, and look forward to providing the local governments of SC with infrastructure improvements. If you have any questions, need additional information, or would like to schedule a meeting please contact me at 678-417-4001 or by email at [kcostley@keckwood.com](mailto:kcostley@keckwood.com).

Sincerely,  
Keck & Wood, Inc.



Keith Costley, PE  
President | Project Principal

## Project Understanding

KW is a reliable, cost-minded, experienced firm that has substantial experience delivering on-call projects.

MASC is looking to secure a list of qualified engineering firms that can provide a multitude of services, with strong experience in water and sewer improvement projects. We understand that these projects are being spurred by ARPA funding, specifically ARPA funding that has been allocated to the South Carolina Infrastructure Improvement Program.

The list will allow local governments to select consultants and expedite project delivery without the need for additional procurement processes.

KW has been serving local governments throughout South Carolina for 60+ years. From our depth of experience, we are ready to provide the following:

## Project Approach

Recently, we helped to secure more than \$30M in funds for clients' projects.

### Design Phase

- Based on approved grant application, assist in defining final scope and layout of proposed improvements.
- Perform field surveying, utilizing KW's in-house surveying crews, necessary for layout and design of the proposed improvements.
- Prepare final design drawings and specifications (Contract Documents), which show the scope and character of the work items to be furnished and performed by a contractor.
- Assist the local government in obtaining such approvals from various regulatory agencies (SCDHEC, ACOE, SCDOT,

OCRM), which may be required for the infrastructure improvements.

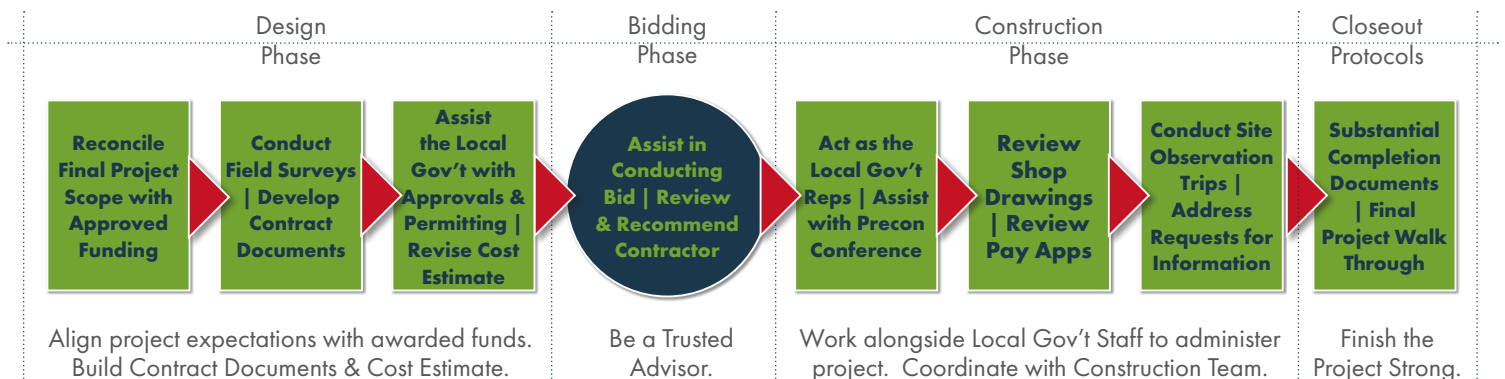
- Adjust preliminary estimate to reflect latest opinion of cost.
- Review final Contract Documents with the local government.

### Bidding Phase

- Assist in selecting a period for advertising and bidding the proposed improvements.
- During the bidding period act as the local government's representative in distributing the Contract Documents and responding to all contractor questions and inquiries.
- Attend bid opening and assist the local government in opening bids.
- Tabulate & evaluate bids - make award recommendation.
- Prepare & distribute Contract Documents (Agreements, Bonds, etc.) which require execution by the Contractor and/or the local government.

### Construction Phase

- Act as the local government's representatives during construction of the proposed improvements.
- Assist the local government in conducting a pre-construction conference in which the Contract Documents will be reviewed with specific emphasis on contractor administrative and procedural responsibilities.
- Review any shop drawings for conformance to Contract Documents (specifications).
- Make periodic visits to the site to observe progress and quality of the work with regard to conformance to the Contract Documents.
- Review contractor requests for payment.
- Conduct a final review to determine substantial completion of the project. Assist the local government in preparing for contractor execution documents verifying substantial completion.
- Assist in final close out of the project.



**Quality Control.** We learned long ago that a day one approach to quality creates successful projects.

Our Total Approach to Quality methodology provides a high degree of quality on our projects through Personal Ownership. Mike Moffitt, PE, our dedicated QA/QC Manager, will create the Detailed Quality Control Plan (DQCP) with the design team. This quality assurance strategy remains connected to the project and is based on three factors:

1. **Plan for quality (assurance).** As our team processes project data, reviews codes and guidelines for the project, they will be documenting any potential shortfalls from quality, schedule and budget standpoints. These findings are then discussed at project meetings with the Project Manager and Principal to provide clarity to the team.
2. **Implement the quality plan.** From kickoff meetings to frequent communications across the entire project team, we will be working together step-by-step with the local government to keep the project moving forward. Mike will provide QA/QC reviews at design milestones. He will provide direct feedback to the engineering team on any potential design issues, or foreseeable errors.
3. **Measure and ensure quality (control).** Our top-down and bottom-up approach to quality is a proven process which has integrated check and cross checks. Utilizing the

DQCP and milestone quality reviews as the foundation for quality, the team will collaborate to provide QC checks from the boots-on-the-ground engineering staff, all the way up to the Principal level.

4. **QC Follow Through – Construction Administration.** The way to control the quality during a project's construction is through consistency. The team that designs the project will be the team to administer CE&I services and/or Construction Administration. From bid tabulations to final punch list, the KW staff assigned to your project will remain.

**Designing with quality in mind is not achieved through a checklist, it must be a part of the company culture.**

KW has been providing quality work for clients for 68+ years. We achieve this by having pride in our work product and being committed to serving our clients. Committing our professionals and the necessary resources for our quality program gets results:

- No E&O claims paid over the past ten (10) years
- Significant reduction of change orders on projects over the past five (5) years
- Low quantity of RFI's across project & engineering-related schedule | budget changes



## “Collaboration By Design”

It is our mission to engage with our clients every step of the way.

We believe that our job doesn't stop at delivering construction drawings.

We create partnerships on a personal level through clear communication, face-to-face meetings, boots on the ground, and personal accountability.

As trusted advisers we help clients navigate complex decisions by breaking them down into clear, understandable choices.

It's how we educate, how we mentor, and how we deliver!

## Management Philosophy

As your Project Managers, Paul Smith, PE and Daniel Wallace, PE's mission is to engage with local governments and MASC (as required) every step of the way. As experienced Project Managers, their jobs don't stop at delivering construction drawings. They create collaborative partnerships through clear and reciprocal communication, face-to-face meetings, boots on the ground, and personal accountability. As your trusted advisers, they will help each local government navigate complex decisions during the project design and execution by evaluating challenges and providing recommendations to minimize impacts and costs.

***As your trusted advisers, Paul and Daniel will collaborate with each government to navigate complex decisions by breaking them down into a series of understandable choices, with clear outlines of each decision's results.***

As trusted consultants to local governments across the State, Paul and Daniel are involved with a wide variety of projects and clients. At KW, we aim for our clients to think of us as extensions of their staff. We strive to provide assurance that when our services are engaged on a unique issue, we will take care of it and offer solid advice.



### Name of Firm

Keck & Wood, Inc.

### Office Addresses

300 Technology Center Way, Suite 400  
Rock Hill, South Carolina 29730

4055 Faber Place Drive, Suites 210  
N Charleston, South Carolina 29405

### Contact Information

#### Telephone Number:

803-768-5200 (Rock Hill)

843-738-4200 (N Charleston)

#### Website Address:

keckwood.com

### Number of Staff Employed Full-Time

Professional Engineers: 26

Engineers in Training: 17

Engineering Technicians: 2

Landscape Architect: 1

Landscape Designer: 2

Land Surveyor: 1

Administrative Personnel: 9

### Primary Points of Contact

#### Midlands | Upstate

Daniel Wallace, PE

803-768-5201

dwallace@keckwood.com

#### Pee Dee | Lowcountry

Paul Smith, PE

843-738-4201

psmith@keckwood.com

### The Professional Civil Engineering Services for Various Projects and On-Call Services will be managed from both our North Charleston and Rock Hill, SC offices.

Keck & Wood, Inc. (KW) is submitting on all project types as listed below and in the Scope of Work.

- Water Line Extensions & Replacements
- Sewer Line Extensions, Replacements, and Rehabilitation
- Wastewater Lift/Pump Station
- Force Main Repairs/Replacement/New Facilities
- Water Treatment Facility Improvements
- Wastewater Treatment Facility Improvements
- System Evaluations
- Water & Sewer System Improvements

**Firm History.** Since its founding in 1954, KW has continued the traditions of engineering excellence and commitment to exemplary service established by our founders, Wyly Keck and Tom Wood. With over 68 years of public sector experience, KW has earned an outstanding reputation for integrity, knowledge, and professionalism in advising our clients. We are committed to improving the quality of life of the region and communities we serve through ethical conduct and dedicated client service.

### Ownership/Corporate Data.

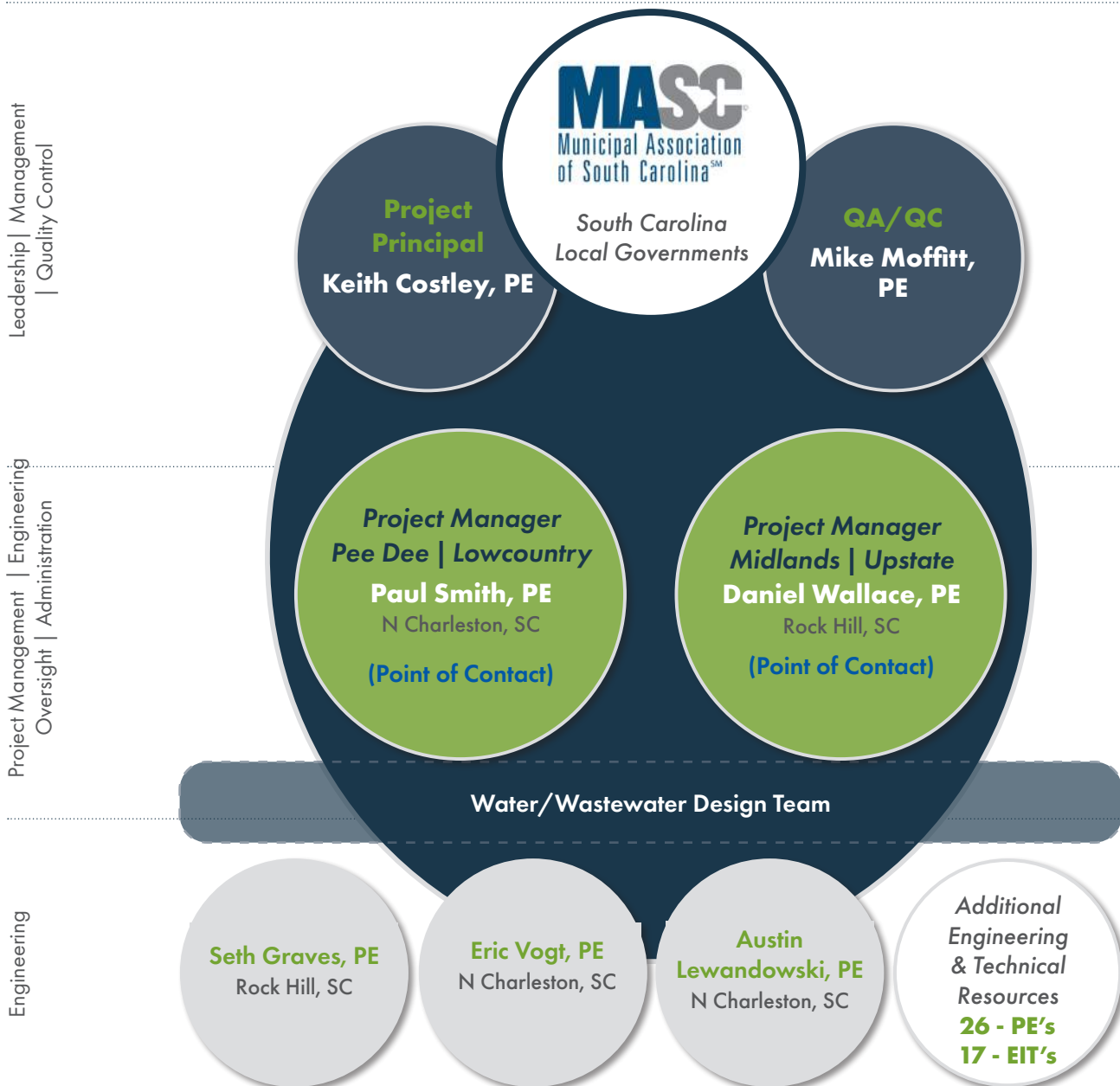
Keck & Wood, Inc. is an employee-owned Class C Corporation, governed by a seven person Board of Directors. We are licensed to perform Engineering and Land Surveying in South Carolina under COA No. 617. From our offices in North Charleston and Rock Hill, SC, and Duluth and Fayetteville, GA, we serve clients in the southeastern states.

**Business Activities.** KW provides professional services in water resources, transportation, and natural gas engineering, landscape architecture, urban redevelopment, site design, and land surveying for state and local governments, utility authorities, public institutions, and private developers. A list of area specific services is included below.

- Water/Wastewater Treatment
- Wastewater Collection
- Water Supply, Storage & Distribution
- Site/Civil
- Rural & Urban Roadway
- Stormwater Systems
- Utility Coordination
- Sidewalks
- Multi-Use Paths/Trails
- Parks & Recreation
- Streetscape
- Traffic Engineering
- Traffic Studies
- Natural Gas
- Planning
- Landscape Architecture
- Land Surveying

### A Strong, Dependable Team

KW has many of the disciplines needed to serve this contract available in-house. We pride ourselves on providing the right professionals for water and sewer improvements, coupled with complimentary expertise such as: utility relocation, GIS analysts, transportation, site, civil, and landscape architecture to name a few.



**KW and all project personnel are committed to meeting or exceeding expectations for timely, within budget projects.**

### Paul Smith, PE

N Charleston, SC

**Project Manager (Pee Dee | Lowcountry)**  
Professional Engineer - SC (18751)  
Education - MS Enviro. Eng. | Georgia Tech  
BS Ceramics Eng. | Clemson University  
Experience - 29 years



*Paul will serve as Project Manager for the Pee Dee and Lowcountry, ensuring all necessary resources are being assigned, communicating with the client, and overseeing the project team throughout the course of the contract.*

- **Project Manager | Noisette Pump Station Rehabilitation | North Charleston Sewer District, North Charleston, SC** - Responsible for the design of the rehabilitation work at the 30 MGD Noisette pump station. Improvements included electrical, structural, and station piping improvements.
- **Project Manager | Filbin Creek Pump Station Rehabilitation | North Charleston Sewer District, North Charleston, SC** - Responsible for the design of the rehabilitation work at the 25 MGD Filbin Creek pump station. Improvements included electrical, structural, and station piping improvements.
- **Project Manager | Parris Island MCRD/Beaufort MCAS Wastewater Consolidation | Beaufort Jasper Water & Sewer Authority, Beaufort, SC** - Responsible for the design of two flow diversion pump stations. The consolidation project consisted of transferring nearly 4.0 million gallons per day of wastewater from the Marine Corps Recruit Depot on Parris Island (MCRD-PI) and the Marine Corps Air Station in Beaufort (MCAS) to the Port Royal WRF by construction of two new pump stations and approximately 72,500 linear feet of force main. The force main was constructed in densely populated and environmentally sensitive areas, with sizes ranging from 12- to 16-inches. The force main construction also included a 16-inch diameter horizontal directional drill under Archers Creek of 6,400 linear feet.
- **Project Manager | Yemassee WWTP Improvements | Lowcountry Regional Water System, SC** - Project consists of the design of a flow splitting structure and aeration improvements, with a future associated PER submittal.
- **Project Manager/Lead Process Engineer | Yemassee WWTP Aeration Improvements and Compliance Assistance | Lowcountry Regional Water System, SC** - Responsible for the evaluation of influent loading data and the of aeration requirements required for meeting these loadings. Project manager responsible for the preparation of design documents for facility improvements.

Rock Hill, SC

### Daniel Wallace, PE

**Project Manager (Midlands | Upstate)**  
Professional Engineer - SC (27049)  
Education - BSCE | University of South Carolina  
Experience - 20 years



*Daniel will serve as Project Manager for the Midlands and Upstate, ensuring all necessary resources are being assigned, communicating with the client, and overseeing the project team throughout the course of the contract.*

- **Design Engineer | Eden Terrace and Myrtle Drive Waterline | City of Rock Hill, SC** - Services included design, permitting, and easement acquisition for 12,600 LF of 24-inch ductile iron water main in addition to stormwater improvements, water and sewer service replacement, asphalt trail replacement, and extensive landscape planning along Cherry Park.
- **Project Manager | Highway 161 Tank and Booster Pump Station | York County, SC** - Prepared Preliminary Engineering Report, site evaluations and recommendation, and construction administration for the procurement and construction of a booster pump station, ground storage tank, and interconnections to the existing water distribution system.
- **Project Manager/Engineer of Record | Pump Station Improvements (RIA) | Town of Andrews, SC** - Services include existing system analysis and assessment, pump station design, permitting, and construction administration for the complete replacement of one pump station and the rehabilitation of another in the Town's sewer system.
- **Project Manager/Engineer of Record | Pump Station Improvements (CDBG) | Town of Heath Springs, SC** - Services include existing system analysis and assessment, pump station design, permitting, and construction administration for the complete replacement of one pump station and the rehabilitation of two other pump stations in the Town of Heath Springs Sewer System.
- **Project Manager | Springs Mill Water & Sewer Replacement (CDBG) | Town of Kershaw, SC** - Services included water system, gravity sewer system, and pump station design, permitting, bidding, and construction administration for the water & sewer system improvements.
- **Project Manager | Water & Sewer Improvements (EDA) | Town of Kershaw, SC** - Services include preparation of Preliminary Engineering Report, permitting assistance, and design of three critical improvement areas (Western Sewer Outfall, Waterline Bore, and ADM Sewer Outfall & Pump Station). Additional services include construction administration, design, drainage engineering, landscape design, and CEI.

### Eric Vogt, PE

#### Water/Wastewater Design

Professional Engineer - SC (39414)

Education - BS Biosystems Engineering | Auburn University

Experience - 6 years

N Charleston, SC



*Eric will provide coordination across the design team and continuous information to the Project Manager.*

- **Project Engineer | Gifford Lift Station | Lowcountry Regional Water, SC** - Project consists of the full rehabilitation of the Gifford Lift Station including new pumps, wet well coating, above grade piping, and new permanent generator.
- **Project Engineer | Project Neptune | Schmelzer Environmental, SC** - Project consisted of the design, PER, and permitting of a new 15,000 GPD industrial wastewater facility. The treatment process utilizes a membrane system

to treat the industrial waste prior to discharge to North Charleston Sewer District.

- **Staff Engineer | PS 290 Basin Analysis | Georgetown County Water & Sewer, SC** - Project consisted of the study of the receiving PS 290 in Pawleys, SC prior to discharge to the WWTP. The deliverable included a report for recommendation of improvements with cost estimates.
- **Staff Engineer | Upper Dorchester County WWTP | Dorchester County Water & Sewer, SC** - Project consisted of utilizing BioWin Software to study the Upper Dorchester County WWTP to propose operational improvements to increase treatment efficacy.

### Austin Lewandowski, PE

#### Water/Wastewater Design

Professional Engineer - SC (39768)

Education - BS Environmental Engineering | University at Buffalo, SUNY

Experience - 6 years

N Charleston, SC



*Austin will provide coordination across the design team and continuous information to the Project Manager.*

- **Staff Engineer | Yemassee WWTP Improvements | Lowcountry Regional Water System, SC** - Project consists of a flow splitting structure and aeration improvements with a future associated PER submittal.
- **Staff Engineer | Project Neptune | City of North Charleston, SC** - Project included a PER submittal and associated design for an industrial pre-treatment system.
- **Staff Engineer | Gifford Lift Station | Lowcountry Regional Water, SC** - Project consists of the full

rehabilitation of the Gifford Lift Station including new pumps, wet well coating, above grade piping, and a new permanent generator.

- **Staff Engineer | Wastewater Treatment Plant | Town of Heath Springs, SC** - The 0.15 mgd WWTP included a PER submittal and influent submersible pump station rehabilitation as a part of a larger plant rehabilitation.
- **Staff Engineer | Calvin Hall Pump Station & Force Main | Lancaster County Water & Sewer District, SC** - Project included a PER submittal and associated sanitary sewer pump station and force main design.

### Seth Graves, PE

#### Water/Wastewater Design

Professional Engineer - SC (39872)

Education - BSCE | Clemson University

Experience - 5 years

Rock Hill, SC



*Seth will provide coordination across the design team and continuous information to the Project Manager.*

- **Design Professional | Beech Avenue Waterline Replacement | Town of Andrews, SC** - Replaced approximately 2,000 LF of small diameter line with 6-inch PVC. Services included water modeling, alignment selection, permitting, and bidding.
- **Design Professional | Celanese/India Hook Utility Relocations | City of Rock Hill, SC** - Collaborated with the City's utility department and SCDOT in order to relocate existing 8-inch sanitary sewer line and replace existing

8-inch AC waterline with 12-inch DIP as a part of the intersection upgrades at Celanese and India Hook Roads. Services included route assessment, easement acquisition, and coordination with multiple authorities having jurisdiction and utilities along the project route.

- **Design Professional | Kershaw Infrastructure Improvements (EDA) | Town of Kershaw, SC** - This multi-scoped project included the installation of 1.5 miles of new 12-inch gravity sewer, 1,800 feet of 8-inch gravity sewer, and the complete rebuild of a pump station. Services included route assessment, pump station design, permitting, and bidding.

### Keith Costley, PE

Duluth, GA

#### Principal

Professional Engineer - SC (19795)

Education - BSCE 1994 | Vanderbilt University

Experience - 28 years



*As Project Principal, Keith will ensure the team has all the resources needed for success. His extensive water and wastewater experience will make him a valuable technical resource to the project team.*

- **Project Manager/Engineer of Record | Southern Bypass Waterline | Town of Fort Mill, SC** - Project included the design and permitting of 21,000 feet of 24-inch water line along right of way.
- **Project Manager/Engineer of Record | Highway 274 24-inch Waterline Phases 1 & 2 | York County, SC** - Project replaced an existing 12-inch trunk line with a new 5.5 mile long 24-inch line that was constructed along with road improvements along the Highway 274 corridor. A hydraulic model of the County's west system was prepared.
- **Project Principal | Pump Station No. 2 Replacement | Chester Sewer District, Richburg, SC** - Project included a Preliminary Engineering Report, design, bidding and construction administration for a triplex variable speed pump station and 9,000 feet of 14-inch diameter force main to increase the sewer capacity of the CSD system in the Richburg, SC area.
- **Project Manager | Water System Study | Town of Heath Springs, SC** - Project included a study of the water system to identify system deficiencies and produce a master plan that identifies and prioritizes system improvements. The resulting model was used to analyze the system hydraulics, use of existing above ground storage, determine critical system deficiencies and analyze the effectiveness of water system improvements.

### Mike Moffitt, PE

Duluth, GA

#### QA/QC

Professional Engineer - SC (11244)

Education - BSCE 1977 | Georgia Tech

Experience - 45 years



*Mike will be responsible for establishing Quality Assurance measures, and the Quality Control review. His extensive water and wastewater design experience makes him a valuable technical resource to the project team.*

- **Project Manager | USDA Rural Development Public Sewer System Improvements | Satilla Regional Water & Sewer Authority, Ware County, GA** - Services included preparation of the PER and successfully acquiring USDA and CDBG funding for this \$26 million project. Provided design and construction administration services for 55 miles of gravity and force-main sewers to serve the suburban area of the City of Waycross.
- **Project Principal | Industrial Park Expansion | City of Cordele, GA** - Project included approximately \$2M expansion of water, sewer, and natural gas systems to serve two new large industrial park customers in the City of Cordele, partially funded by EDA. Work involved design and construction of 3,400' of 12-inch water mains, 5,800' of 8-inch force mains, 6,700' of 4-inch gas mains, and a \$700K upgrade to the existing natural gas peak shaving plant. Monitored production of construction documents and administered compliance with forms and documentation required by the EDA.
- **Project Principal | Wastewater Plant Expansion | City of Buford, GA** - Expansion and construction of 3.0 mgd using membrane bioreactor treatment with flow equalization tanks, primary mechanical screens, vortex grit removal, MBR mechanical screens, diffused air aeration tanks, membrane tanks, ultraviolet disinfection, belt press, aerobic digestion, odor control, and new control building for the City of Buford, Georgia. Organized and managed team of engineers and technicians through preliminary design, detailed design, and construction phases.
- **Project Engineer/Owner's Consultant | City of Woodstock, GA** - Project included design build contract for 2.5 mgd wastewater plant expansion for the City of Woodstock. Project converted SBR plant to membrane bioreactor plant with more sophisticated processes and controls.

## On-Call Professional Consulting Services

Through our involvement with on-call contracts across the state and the diversity of assignments received, we have a thorough understanding of local government issues, policies, procedures, and standards. The KW team is familiar with the challenges local governments are faced with every day and the level of effort expected. We are committed to serving local governments throughout South Carolina with our highest level of service.

Our primary client base at KW includes local governments. This allows us to enhance our ability to deliver local government let projects. Many of our client relationships have involved multi-year on-call contracts. In addition to the South Carolina on-call clients listed below, we are currently providing a variety of services through on-call professional consulting contracts to municipal and county governments and state institutions throughout the southeast, with relationships reaching back 50+ years!

South Carolina On-Call Clients	Service Dates	Services									
		Site Development	Roadways	Water & Sewer	Studies	Land Surveying	Utility Coordination	Pedestrian Facilities	Stormwater	Landscape Arch.	Project Management
City of Rock Hill, SC	2016 - present		X	X	X	X	X	X	X	X	X
City of York	2022 - present			X	X						
Town of Sullivan's Island, SC	2020 - present		X	X	X	X	X	X	X	X	X
Lancaster County, SC	2010 - 2022	X	X		X	X	X	X	X	X	X
York County, SC	2000 - present		X							X	
York Technical College   York County, SC	2006 - present	X	X	X	X	X	X	X	X	X	X
Winthrop University   York County, SC	2006 - present	X	X	X		X	X	X	X	X	X
Rock Hill School District   Rock Hill, SC	2016 - 2018					X			X	X	
University of South Carolina   Statewide	2008 - present	X		X		X	X		X		X
St. Johns Water Company   Johns Island, SC	2019 - present			X	X		X				X

## The Advantage of KW's Robust Team of Professionals

On-call contracts provide flexibility for municipalities. They provide access to engineering and other professionals to quickly address issues that can hinder a community. The advantage to having KW as a consultant of choice is the varying skill set of our people to address the complete project. In addition to Civil Engineering Services, our team has skilled resources that reach back into Landscape Architecture, Utilities Relocations, Natural Gas, GIS, Site Lighting, Pavement Assessment, Land Survey, Hydrology, ITS Traffic Signalization, Asset Management, Project Estimating, and ADA improvements.

In addition to project skills, the KW team also brings valuable administrative skills such as, Grant Assistance & Administration, Project Bidding Administration, Complete Construction Administration, Public Involvement & Town Hall Meeting Support, and Professional Renderings & 3D modeling.

Together, our project acumen and administrative skills enable KW to be your trusted advisor for managing this Civil Engineering contract and beyond as needed to ensure projects stay on track for completion.

### The KW Formula For Success

A Stellar KW Project Team

+ KW Additional Professional Resources

= Your Successful Project!

**2019 Pump Station Improvements  
Town of Andrews, SC**



KW provided civil engineering, land surveying, permitting, bidding and construction administration services for the RIA funded Pump Station Improvements which consisted of two pump station upgrades/rehabilitations (Deerwood Estates and County Line Pump Stations).

The combined project scope consists of the complete replacement of the Deerwood Estates PS and the rehabilitation of the County Line PS. In addition, all existing force mains were cleaned by pigging. RIA grant funding was secured due to the age and condition of the existing infrastructures to minimize the Town's cost for the improvements. This project is part of a multi-phased approach to rehabilitate Town infrastructure to better serve the customers, improve efficiency, and minimize O&M costs.



**Complete/Value:** 2021  
\$597,000

**Project Manager:** Daniel Wallace, PE

**Client Contact:** Mauretta Wilson, Town Administrator  
843-264-8711  
mwillson@townofandrews.sc.gov



**2020 Infrastructure Improvements  
Town of Kershaw, SC**



KW is providing engineering, land surveying, permitting, bidding, and construction administration services for the EDA funded ADM and Sewer Outfall Improvements which consists of gravity sewer system upgrades and the full replacement of a pump station serving a primary Town industry and surrounding residential area.

The project scope includes the replacement of approximately 1,700 lf of 8-inch gravity sewer main and eight manholes. Improvements consist of the complete replacement of the 2nd Street PS including a new wetwell, pumps, controls, vault, crane hoist, automatic switch gear, and associated appurtenances.

This project was awarded EDA grant funding due to the age and condition of the existing infrastructure, critical service of primary Town industry, and need for protection from natural disasters.



**Complete/Value:** Ongoing  
\$1.9M

**Project Manager:** Daniel Wallace, PE

**Client Contact:** Mitch Lucas, Former Town Administrator  
803-475-3061  
mitch.lucas@townofkershaw.gov



**Yemassee Wastewater Treatment Plant Aeration & Flow Improvements**  
**Lowcountry Regional Water System, SC**

**Funding to be determined**

Project consists of aeration and flow improvements of the Yemassee Wastewater Treatment Plant and is currently in the data collection and design phase.

Rehabilitation work includes a flow splitting structure to equally divide flow between treatment trains, new aerators for basins 5 & 6 as required by the data collected, and new associated controls & electrical site work.

KW is providing the PER, preliminary budget & schedule, design, permitting, bidding assistance, construction administration, and site inspections.

**Complete/Value:** 2024 (anticipated)  
TBD

**Project Manager:** Paul Smith, PE

**Client Contact:** Kari Foy, PE  
803-398-2456  
kari.foy@lowcountrywater.com

**2019 Pump Station Improvements**  
**Town of Heath Springs, SC**



KW provided civil engineering, land surveying, permitting, bidding, and construction administration services for the CDBG funded Pump Station Improvements which consisted of three pump station upgrades/rehabilitations (Flat Rock, Caskey, and Depot Stations).

The combined project scope consisted of the complete replacement of the Flat Rock PS and the rehabilitation of the Caskey and Depot PS. All existing force mains were cleaned by pigging as part of the project. Pigging Valves were left in place to serve as bypass points or access for additional cleaning in the future. Due to ongoing rag clogging problems at the stations, specialized cutting pumps were installed to alleviate the problem and reduce operation and maintenance costs.



**Complete/Value:** 2020  
\$596,000

**Project Manager:** Daniel Wallace, PE

**Client Contact:** Wanda Kilpatrick, Town Clerk  
803-273-2066  
wanda@heathsprings.us



**Gifford Pump Station Rehabilitation**  
Lowcountry Regional Water System, SC



The project consists of the rehabilitation of the Gifford Lift Station, and is currently in the bid award phase.

Rehabilitation work includes new pumps, new above grade piping, coating the existing manhole and wetwell, new controls, temporary bypass, and associated site work.

**Summary of Services:**

- Preliminary Engineering Report (PER) | Project Narrative | Feasibility | Benefits | Impact Narratives
- Preliminary Budget & Schedule
- Engineering Design
- Permitting
- Bidding Assistance
- Construction Administration
- Site Inspections

**Complete/Value:** 2023 (anticipated)  
\$546,553

**Project Manager:** Paul Smith, PE

**Client Contact:** Kari Foy, PE  
803-398-2456  
kari.foy@lowcountrywater.com

**Wastewater Treatment Facility Improvements**

Town of Heath Springs, SC



Project focused on the improvements of several areas of a 0.15 MGD municipal wastewater treatment facility.

Improvement work included new Headworks facility with mechanical screen, new chemical feed system, influent pump station equipment upgrades, waste activated sludge system upgrades, aerobic digester aeration diffuser rehabilitation, new drain pumping system in existing chlorine contact basin, and improved facility lighting. Work also included scheduling construction work sequencing to bypass process units undergoing improvements to keep plant effluent within permit limits during construction.

**Complete/Value:** 2022  
\$1.1 M

**Project Manager:** Paul Smith, PE

**Client Contact:** Wanda Kilpatrick, Town Clerk  
803-273-2066  
wanda@heathsprings.us



**Beech Avenue Waterline Replacement  
Town of Andrews, SC**



KW is providing civil engineering services consisting of project implementation from PER development, funding, construction document development, permitting assistance, and construction administration. The CDBG funded project includes an upgrade to the waterline along Beech Avenue from W Main Street to W Walnut Street from a small diameter line to a 6-inch C900 PVC line. New ties to existing connections will be made to create looping in the system as well as new service connections along the entire upgrade.



The project is currently in the bidding phase and completion is expected in Spring 2023.

**Complete/Value:** 2023 (anticipated)  
\$450,000

**Project Manager:** Daniel Wallace, PE

**Client Contact:** Mauretta Wilson, Town Administrator  
843-264-8711  
mwillson@townofandrews.sc.gov

**Kingstree WWTP Effluent Disinfection Improvements  
Town of Kingstree, SC**

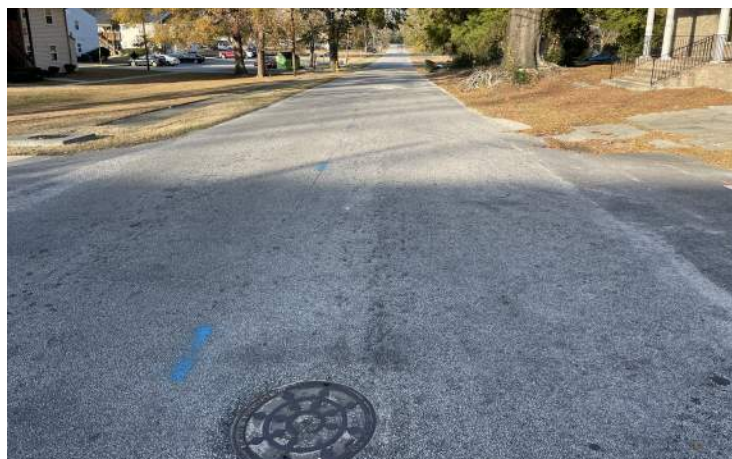
KW has provided services to study and correct NPDES permit violations associated with disinfection. Due to contributions from an industrial discharger, chlorine became ineffective in disinfecting the facility's effluent. KW pilot tested an alternative disinfectant (paracetic acid) which proved successful. Full scale testing is scheduled to begin 10/17/2022. Following the successful full scale testing, KW will provide services to design and construct the permanent disinfection facilities.



**Complete/Value:** 2023 (estimated)  
TBD

**Project Manager:** Paul Smith, PE

**Client Contact:** Richard Treme, Town Manager  
843-355-7484  
rtreme@kingstree.org



**Jackson Creek Wastewater Treatment Plant  
Rehabilitation**  
Town of Winnsboro, SC

**Local funds through Revenue Bonds**

Project focused on the rehabilitation of several areas of a 4.0 MGD municipal wastewater treatment facility.

Rehabilitation work included the replacement of equipment and piping for an anaerobic digester, a floating digester roof, distributor and plastic media with underdrains for a trickling filter, baffle & coating for chlorine contact chamber, three sets of duplex sludge handling and transfer pumps & valves, installation of a new digester mixing system with externally mounted duplex circulating chopper pumps, and construction of a new 1,000 SF laboratory building at the plant.

Work also included cleaning, removal, and disposal of existing digester contents and scheduling construction work sequencing to bypass trickling filter undergoing rehabilitation for a period of 4 months and keeping plant effluent within permit limits during construction.

**Complete/Value:** 2020  
\$3.1M (Engineer's estimate)  
\$2.7M (construction)

**Client Contact:** Don Wood, Town Manager  
803-815-2949  
dlwood@truvista.net

**Hanging Rock Creek Wastewater Treatment Plant  
Improvements**  
Town of Kershaw, SC



Project consisted of improvements to several areas of the 0.80 MGD permitted municipal wastewater treatment facility involving safety & security upgrades, replacement of aging infrastructure, water quality monitoring improvements, and chlorine contact basin modifications.

The aging infrastructure involved replacement of the SBR decanter assemblies while the water quality monitoring upgrades provided new dissolved oxygen (DO) meters and pH meters in the process basins with blower control improvements and alkalinity chemical feed equipment additions. The chlorine contact basin modifications included baffle wall repairs, wall coating replacement, and chlorine dosing piping modifications.

**Complete/Value:** 2020  
\$600,000

**Client Contact:** Mitch Lucas, Former Town Manager  
803-475-6065  
mitchlucas@comporium.net



Our firm and staff members have extensive experience with infrastructure improvements involving engineering grant services. The table below depicts a sampling of our recently completed federally funded project experience throughout the Southeast. Detailed project experience for the highlighted projects has been included in the previous section.

Federally Funded Project Experience										
Owner/Contact	Project Name	Cost	Complete/ Status	Funding Source				Project Type		
				CDBG	EDA	RIA	Revenue Bonds	Sanitary Sewer	Stormwater	Waterline
<b>Town of Heath Springs, SC</b> Jason Truesdale Town Administrator 803-273-2066 jason@heathsprings.us	WWTP Facility Improvements	\$1.1 M	2022	X		X		X		
	Water System Improvements, Ph V	\$386K	2016	X						X
	Water System Improvements, Ph IV	\$359K	2013	X						X
	Main Street Waterline	\$230K	2015	X						X
	2019 Heath Springs PS Improvements	\$596K	2020	X				X		
<b>Town of Andrews, SC</b> Mauretta Wilson Town Administrator 843-264-8711 mwilson@townofandrews.sc.gov	2019 Pump Station Improvements	\$597K	2021			X	X	X		
	Beech Avenue Waterline Replacement	\$450K	2022	X						X
<b>Town of Kershaw, SC</b> Mitch Lucas Former Town Administrator mitch.lucas@townofkershaw.gov 803-475-3061	2020 Infrastructure Improvements	\$1.9M	Ongoing		X			X		
	Wastewater Facility Improvements	\$950K	2020	X				X		
	Hanging Rock Creek WWTP Improvements	\$600K	2020			X		X		
	Springs Cotton Mill W&S Ph II	\$329K	2015	X				X		X
<b>Town of Winnsboro, SC</b> Don Wood, Town Manager 803-815-2949 dlwood@truvista.net	Jackson Creek WWTP Rehabilitation	\$2.7	2020				X	X		
<b>Town of Fort Mill, SC</b> Greg Rushing, Utilities Director 803-396-9729 grushing@fortmillsc.gov	Paradise Revitalization Project	\$522K	2017	X						X
<b>Lowcountry Regional Water, SC</b> Kari Foy, PE 803-398-2456 kari.foy@lowcountrywater.com	Yemassee WWTP Aeration & Flow Improvements	TBD	2024 (est)	TBD				X		
	Gifford Pump Station Rehabilitation	\$547K	2023 (est)			X		X		

## Federally Funded Project Experience

Owner/Contact	Project Name	Cost	Complete/ Status	Funding Source				Project Type		
				CDBG	EDA	RIA	Revenue Bonds	Sanitary Sewer	Stormwater	Waterline
<b>Chester County Wastewater Recovery, SC</b> Phillip Thompson-King Executive Director philtk@cmdcsd.com 803-337-3541	E Chester Drainage Improvements	\$268K	2016	X					X	
	Regional Sewer PS Replacement	\$1.082M	2015		X			X		
<b>City of Union City, GA</b> Lonnie Ferguson Director of Public Services 770-306-6855 lferguson@unioncityga.org	Golden Oaks Subdivision Water Service Line Replacement	\$50,600	2022	X						X
<b>Satilla Regional W&amp;S Authority</b> Henry McLaughlin, Director 912-287-4366 henry@srwsa.com	Public Sewer Improvements	\$26M	2005	X				X		
<b>City of Buford, GA</b> Bryan Kerlin, City Manager 770-945-6761 bkerlin@cityofbuford.com	Victor Drive Sewer Improvements	\$183K	2016	X					X	
	Sewer System Improvements	\$600K	2014	X				X		
	CDBG Waterline Improvements	\$600K	2014	X						X
	Garner Street Water Improvements	\$150K	2013	X						X
	Sagefield Waterline Improvements	\$100K	2013	X						X
	Roberts Street Waterline Improvements	\$150K	2013	X						X

