STATEMENT OF QUALIFICATIONS

City of Hollywood, Florida

INFRASTRUCTURE PROJECTS (WATER, SEWER, REUSE AND STORMWATER)

RFQ-042-23-JJ

February 28, 2023

GANNETT FLEMING

800 NW 62nd Avenue
Suite 490
Miami, FL 33126
P 786.845.9540 | **F** 786.845.6802

gannettfleming.com

February 28, 2023

Mr. Feng Jiang, Assistant Director
City of Hollywood, Department of Public Utilities
2600 Hollywood Boulevard
Hollywood, FL 33020-4807

RE: RFQ-042-23-JJ Infrastructure Projects (Water, Sewer, Reuse and Stormwater) for the City of Hollywood

Dear Mr. Jiang:

The City of Hollywood (the City) is committed to providing reliable water, wastewater, reclaimed water, and stormwater service to its customers and contributing to the region's sustainable economic growth. To continually offer reliable services at the highest level of service to the customers while protecting natural resources, the City must regularly maintain and upgrade its facilities and infrastructure to meet regulatory requirements, growth demands, axging infrastructure and provide high-quality services to its customers.

Our team understands South Florida's challenges and the need to adapt and provide sound solutions to our local community, including the City of Hollywood. With these challenges bring opportunities for integrating infrastructure solutions. Opportunities, such as IIJA infrastructure bill or Florida's water-quality grant programs, should be part of the of this equation to expand funding. Similarly, implementing innovative and proven technology can support efficiencies in project delivery. This includes everything from design tools and business processes to GIS technology. Responding to the City's need for professional engineering services for its infrastructure, this contract requires a firm with the depth of technical expertise, experience, and knowledge of current and future regulations, innovative technologies and best practices to offer efficient, cost-effective design solutions that meet project objectives, regulatory requirements, and operational needs.
Gannett Fleming, Inc. is that firm.

Gannett Fleming, Inc. (Gannett Fleming) and our assembled team of professionals are committed to support the City with your long-term infrastructure improvements. We are a multi-disciplined planning, engineering, and construction management firm that has been providing engineering services to municipal clients for more than 108 years. We have held ***thousands of task-order type contracts*** and have provided water, wastewater, reclaimed water, and stormwater engineering services ***throughout Florida for more than 70 years.***

SELECTION CRITERIA

- **Firm Qualifications and Experience.** Gannett Fleming has been implementing multidisciplinary solutions to Florida infrastructure for more than 70 years and supporting municipal clients across the country for more than 100.
- **Organizational Profile and Project Team Qualifications.** Our team is qualified and experienced, offering a high level of professionalism, commitment, and quality to every deliverable. We have the resources to match project specific challenges.
- **Approach to Scope of Work.** Our proven approach to task order contracts leverages past experience, innovative technologies, and lessons learned to maintain schedule, budget, and quality.
- **Past Performance and References.** Our team members have extensive similar experience in pump/lift station, water line, sewer line, and treatment design, rehabilitation, and construction. Our resumes and projects include descriptions of this project work.
- **Value of Past Contract Awards by the City in the Last 5 Years.** We have not worked with the City of Hollywood and look forward to building this relationship.
- **Location of Consultant Office Managing Project.** Gannett Fleming and our teaming partners have offices within 20 miles of the City of Hollywood.

GANNETT FLEMING

RE: RFQ-042-23-JJ Infrastructure Projects (Water, Sewer, Reuse and Stormwater)

February 28, 2023

Our professionals have designed and placed into service hundreds of water and wastewater pumping stations, thousands of miles of water and sewer mains, more than 600 water and wastewater treatment plants (WTPs and WWTPs), reclamation facilities, and numerous groundwater resources projects. Pumping stations designed by our firm have varied in complexity and capacity from 0.1 mgd to 395 mgd. Our water main and sewer design experience includes gravity and pressure systems with mains up to 96 inches in diameter for a wide range of facilities under a variety of site conditions. The treatment plants range from less than 0.1 mgd to 160 mgd. We have also planned, designed, and implemented septic to sewer programs, including collaborating with municipalities on governance structure, funding allocation, and implementation schedule.

By partnering with the Gannett Fleming team, the City will work with ***a locally-based, comprehensive, responsive team of specialists*** who will deliver proven methods to safely and efficiently deliver your infrastructure projects through planning, design, and construction administration — on-schedule and while minimizing risks to the public. We will leverage our similar water, sewer, and lift/pump station experience with pipeline routing evaluation and horizontal directional drilling to meet your future capacity needs. In addition, our knowledge of the standards and our experience with Florida Department of Transportation (FDOT), U.S. Army Corps of Engineers (USACE), and Florida Department of the Environment (FDEP) permitting gives us confidence that ***we can meet your schedule and budgetary requirements***.

Keisha Westbrook, PE will serve as Project Manager and the City's primary point of contact. Keisha brings ***a fresh perspective to the City along with an extensive understanding of water and sewer infrastructure*** in the Southeast. She will leverage this experience to deliver quality design and engineering services on time and within budget. Keisha has more than 27 years of experience in the municipal water and wastewater utility sector, delivering projects from planning, to implementation of water distribution and wastewater collection pipelines, pump stations, injection well disposal, and wastewater treatment plant projects.

We acknowledge receiving five addenda: Addendum Number 1 (January 18, 2023), Addendum Number 2 (January 19. 2023), Addendum Number 3 (January 19, 2023), Addendum Number 4 (January 24, 2023), and Addendum Number 5 (February 21, 2023).

We appreciate the opportunity to submit our qualifications and look forward to building a successful relationship with the City of Hollywood. If you have any questions or would like additional information, please do not hesitate to contact Project Manager Keisha Westbrook at 305.908.4390 or kwestbrook@gfnet.com, or myself at 305.908.3873 or at yglenny@gfnet.com.

Sincerely,
Gannett Fleming, Inc.

Yurfa L. Glenny, PMP
Vice President, QA/QC and Value Engineering Lead

Keisha Westbrook, PE
Project Manager

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GANNETT FLEMING

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GANNETT FLEMING

TAB B. EXECUTIVE SUMMARY

B.1 WHY GANNETT FLEMING?

The City of Hollywood is in need of a consultant that not only has the necessary expertise designing for water and wastewater (W/WW) pipelines and pump stations but also understands the challenges innate to Florida infrastructure, regulations, and policy drivers. For more than 70 years, Gannett Fleming has partnered with Florida state and local government agencies to build and sustain its communities. Gannett Fleming embraces sustainability and innovation in our projects and day-to-day activities, achieving results while being responsible stewards of their environment. This is reflected in our mission statement: ***"Amaze our clients with our quality, innovation, and responsiveness and become their trusted advisor; promote a rewarding work environment; and provide a fair return on investment."***

By selecting Gannett Fleming, the City will partner with a committed, local team of professionals proven to be responsive, cost-effective, and with a high commitment to quality delivery. We stand ready to help the City improve its infrastructure in support of a safe, resilient future for its community.

BASIC COMPANY INFORMATION

Company Name: Gannett Fleming, Inc.
Primary Contact:
Keisha Westbrook, PE - Project Manager

800 NW 62nd Avenue, Suite 490
Miami, FL 33126-1233
(t) 305.908.4390 | (f) 786.845.6802
kwestbrook@gfnet.com

B.1.1 Key SOQ Elements:

- **Meets all Minimum Qualifications.** Gannett Fleming meets all of the minimum requirements and will use its extensive similar experience and proven tools, technologies, and processes to efficiently execute services while minimizing impacts to the environment, existing utilities, and the public.
- **Specializes in Providing W/WW Engineering Solutions for Public Utilities.** Gannett Fleming has designed more than 750 pumping stations ranging in capacity from 0.2 million gallons per day (mgd) to 395 mgd, intercepting sewers up to 96 inches in diameter, new large diameter force mains and parallel force mains up to 60 inches, rehabilitation of existing force mains, thousands of miles of water mains up to 102 inches, and designed and planned more than 600 W/WWTPs with capacities of up to 1.25 billion gallons per day (bgd). Leveraging this expertise, we will offer innovative ideas and proven delivery to address the City's critical infrastructure needs.
- **Highly Qualified Key Personnel.** Gannett Fleming's proposed key personnel and qualified professionals in W/WW engineering bring a wealth of knowledge and experience to solve the most complex challenges from technical to governance. Our local, integrated team has extensive experience working throughout the State of Florida, performing services from evaluations through design and construction for clients such as the FDEP, City of Miami Beach, South Florida Water Management District (SFWMD), FDOT, and Miami-Dade Water and Sewer Department (MDWASD).

B.2 BUSINESS INFORMATION

B.2.1 Business Entity

- Corporation

B.2.2 Firm Background

Gannett Fleming, a full-service, multi-disciplinary planning and engineering firm established in 1915, has played a significant role in shaping infrastructure in South Florida, as well as across the U.S. and overseas for more than 108 years. With a staff of more than 2,700 employees in 55 offices throughout the United States and abroad, our local Miami office of 54 professionals has supported the region since 1993. We have played a part in ***shaping infrastructure and improving communities, specializing in wastewater and water facilities***. Having delivered engineering services on more than 20,000 diverse assignments, we have built a solid reputation for engineering excellence in these critical infrastructure projects.

We are consistently ranked in the top 10 percent on Engineering News-Record's Top 500 Design Firms list (#29) and have the depth of staff and breadth of experience to provide our clients with integrated services on projects of various sizes, while remaining agile and focused on our clients' needs.

ENGINEERING NEWS-RECORD
2022 ANNUAL RANKINGS

#8	Dams and Reservoirs
#12	Wastewater Treatment Plants
#13	Water Treatment and Desalination
#13	Water Supply
#22	Sewage and Solid Waste
#29	Top 500 Design Firms

B.2.3 OFFICE LOCATIONS

Gannett Fleming's headquarters is in Camp Hill, Pennsylvania; however, offices to service this contract are in South Florida. Our offices in Miami, Fort Lauderdale, and West Palm Beach are staffed by professionals, many with over 20 years of experience working on W/WW projects in Florida. Our 100+ W/WW specialists have completed assignments for industrial clients; public and investor-owned utilities; and agencies and authorities of municipal, state, and federal governments. Work under this contract will primarily be performed out of the Miami office.

B.3 KEY PERSONNEL

To assist the City with the technical expertise needed to address its pipelines, pump station, and treatment projects, Gannett Fleming structured our team to include experienced, qualified engineers and professionals who offer innovative, quality designs that address regulatory requirements and promote resilient solutions.

Our qualified team has the experience, capabilities, and technologies to deliver this contract and begin a successful working relationship with the City. Our core team alone averages more than 25 years of relevant experience and includes 13 Florida-registered Professional Engineers. Our team's management and leadership are based in Miami: Keisha Westbrook, Project Manager; Abnery Picón, Project Engineer; Lilian Marrero, Project Engineer; Naldo Gonzalez, Project Principal; and Key Personnel Yurfa Glenny, Carolina Cubides, Alejandro Uribe, Jorge Orozco, and Alina Fernandez are ***all located in our South Florida offices.***

Our project management and key personnel bring expertise in water, sewer, reuse and stormwater infrastructure, value engineering, quality control and quality assurance, and W/WW treatment. We have also included key personnel with specialized experience in regulatory compliance, risk/resiliency, cost estimating, architecture, and roadway. In **Table B.3-1** on the following page, we have provided a brief summary table of our key personnel, their roles, office locations, and what they bring to the City.

Table B.3-1: Key Personnel were selected based on their extensive experience and qualifications to serve the City of Hollywood on this infrastructure contract.

KEY PERSONNEL, ROLE, OFFICE LOCATION	BENEFIT TO CITY OF HOLLYWOOD
 **Keisha Westbrook, PE** **Project Manager, Primary Contact** *Located in Miami, FL (Home Office in Doral, FL)*	A fresh perspective to Hollywood W/WW infrastructure and proven project management experience for FL clients
 **Abnery Picón, PE, PMP, ENV SP** **Project Engineer, Infrastructure Lead** *Located in Miami, FL*	Efficient project delivery based on 20+ years of specialized expertise and experience in W/WW infrastructure
 **Lilian Marrero, PE, ENV SP** **Project Engineer, Infrastructure Lead** *Located in Miami, FL*	Technical expertise in leading pipeline improvements for local municipalities
 **Carolina Cubides, PE, PMP, ENV SP** **Infrastructure Lead** *Located in Miami, FL*	National design and permitting experience for pipelines, force mains and gravity sewers
 **Alejandro Uribe, PE** **Infrastructure Lead** *Located in Miami, FL*	Thorough understanding of permitting and regulatory requirements for designing for Florida utilities
 **Jorge Orozco** **Constructibility Lead, Value Engineering / QA/QC** *Located in Miami, FL*	Extensive knowledge of local Florida regulations to maintain consistency and compliance across contracts
 **Yurfa Glenny, PMP, ENV SP** **Value Engineering / QA/QC Lead** *Located in Miami, FL*	Reliable management of CIP portfolios valued at >$200M for W/WW infrastructure, including with the City from 2009-13
 **Alina Fernandez, PE** **Value Engineering / QA/QC Lead, Roadway** *Located in Miami, FL*	Integration of roadway and other utility projects so compliance is met across all contracts
 **Sophia Liskovich, PE** **Treatment Lead** *Located in Owings Mills, MD*	Safe, reliable W/WW treatment design using best practices in accordance with Florida regulations
 **Courtney Arena, ENV SP** **Permitting / Regulatory / Environmental** *Located in West Palm Beach, FL*	Expertise in ecosystem restoration, protected species monitoring and regulatory permitting with federal, state, and local agencies
 **Ister Morales, PE** **Risk / Resiliency** *Located in Fairfax, VA*	Project integrator of short, medium, and long-term implementation actions for applicable climate stressors
 **Vernon Scott** **Cost Estimating / Scheduling** *Located in Tampa, FL*	Accurate preliminary and final cost estimates with integrated schedules for W/WW projects in Florida
 **Brian Shifflett, RLA, LEED AP** **Architecture / Landscape Architecture** *Located in Camp Hill, PA*	Thoughtful designs that both accommodate current utility demands and anticipate future needs

TAB C: FIRM QUALIFICATIONS AND EXPERIENCE

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TAB C: FIRM QUALIFICATIONS AND EXPERIENCE

Gannett Fleming meets all of the minimum requirements and will use its extensive similar experience and proven tools, technologies, and processes to efficiently execute quality services for the City while minimizing impacts to the environment, existing utilities, and the public.

C.1 MINIMUM QUALIFICATIONS

C.1.1 Engineering License in the State of Florida

Gannett Fleming is a registered engineering firm licensed with the state of Florida (License Number: 5564; Original License Date: January 23, 1990; Status: Current). We are actively registered with the Florida Department of State, Division of Corporation. Additionally, our team includes individuals who are also licensed to provide engineering services in the State of Florida. Information for all current, relevant licenses and registrations are included in staff resumes under Tab D. in **Section D.3 Expertise of Proposed Staff.**

C.1.2 Years in Business as Gannett Fleming

Gannett Fleming was incorporated in Delaware in 1989 and is part of the Gannett Fleming organization, which has provided water engineering services throughout Florida since the early 1950's and throughout the US for 108 years. In just the last 10 years, we provided engineering and CEI services on more than 60 W/WW projects for Florida clients including JEA, Tampa Bay Water, City of Tampa, St. Johns River Water Management District (SJRWMD), and SFWMD.

70+
years performing work for local governments in Southeast Florida

1,000+
Similar on-call type contracts including W/WW contracts

730+
Earth Science and Facilities employees nationwide

108+
years of continuous A/E practice

C.1.3 Lawsuits

Gannett Fleming and its principals have no record of judgments, pending lawsuits against the City or criminal activities involving moral turpitude, and do not have any conflicts of interest that have not been waived by the City Commission.

C.1.4 Default

Gannett Fleming and/or any principal, officer, or stockholder is not in arrears or in default of any debt or contract involving the City, (as a party to a contract, or otherwise) nor have failed to perform faithfully on any previous contract with the City.

C.2 FIRM OVERVIEW

C.2.1 Business Structure

Gannett Fleming is a Corporation, incorporated in Delaware in 1989. Gannett Fleming is part of the Gannett Fleming organization, which has been in continuous operations since 1915.

BASIC COMPANY INFORMATION

Company Name: Gannett Fleming, Inc.
Website: https://www.gannettfleming.com/
Primary Contact:
Keisha Westbrook, PE - Project Manager

800 NW 62nd Avenue, Suite 490
Miami, FL 33126-1233
(t) 305.908.4390 | (f) 786.845.6802
kwestbrook@gfnet.com

C.2.2 Office Locations

Gannett Fleming will lead and perform the majority of the project work for this infrastructure project from our Miami office located at 800 NW 62nd Avenue, Suite 490, Miami, FL 33126-1233. Illustrated in **Figure C.2-1. Office Locations (*right*)**, Gannett Fleming's office is 20 miles from the City of Hollywood, allowing us to be immediately available when needed. Our team's management and leadership are based in Miami: Keisha Westbrook, Project Manager; Abnery Picón, Project Engineer; Lilian Marrero, Project Engineer; and Key Personnel Yurfa Glenny, Carolina Cubides, Courtney Arena, Alejandro Uribe, Jorge Orozco, and Alina Fernandez are ***all located across our South Florida offices.***

C.2.3 Size of Firm

With a culture of innovation and a team of more than 2,700 highly qualified professionals, we are ready to meet your project challenges and to pioneer contributions that improve our communities and sustain our world through the next century. To provide the highest quality of service, the team features a leading Florida licensed professionals for each area of expertise supported by a group of highly qualified staff. Our most recent employee numbers are provided in the Table C.2-1.

Table C.2-1. Employee Resources. With 2,700+ professionals, Gannett Fleming has the capacity and resources to successfully deliver services under this contract.

CLASSIFICATION	TOTAL
Project Management	812
Technical Staff	1,434
Support/Administrative Staff	470
Total	2,716

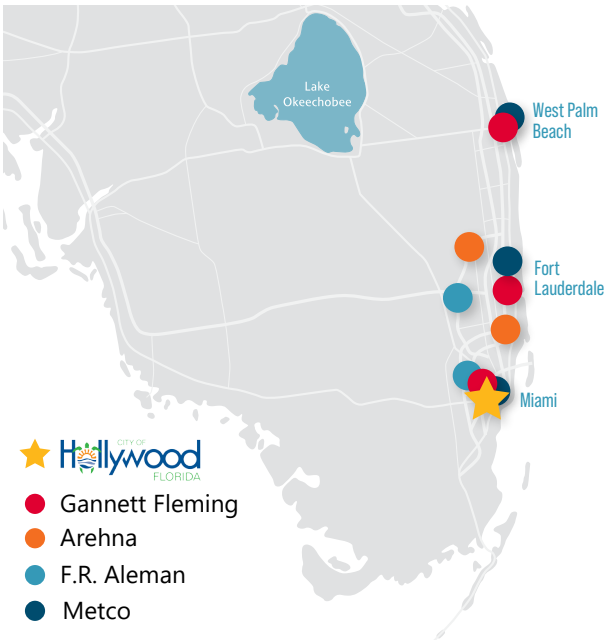


Figure C.2-1. Office Locations for Responsive Project Delivery. The Gannett Fleming team has a strong presence in the State of Florida. Each firm has offices within 20 miles of the City, assuring committed resources are readily available to the project for smooth delivery.

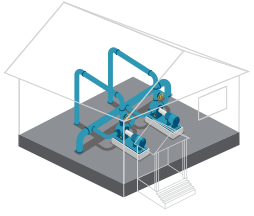
C.3 EXPERIENCE WITH SCOPE OF SERVICES

From our inception, water resource management was and still remains one of Gannett Fleming's core areas of expertise. In the last century, we performed thousands of water, wastewater, and reclaimed water treatment and pump station assignments. Our services include planning and feasibility studies; process analysis; detailed design; permitting; construction-related services; startup, operations, and manuals; modeling and analyses; and asset management. Our staff of professionals includes W/WW operations experts who provide a wide variety of consulting services to our clients, including training and manual development.

During the past 50 years, Gannett Fleming has held ***more than 1,000 GES-type contracts***. These range from master service agreements, to indefinite delivery contracts, to basic ordering agreements for federal, state, and local governments as well as private clients. We provide cost-effective services using efficient designs while meeting schedule, budget, quality, and regulatory requirements. Our clients, many of which are water utilities, regularly retain us on repeat assignments because we deliver what we promise.

GANNETT FLEMING'S
WATER AND WASTEWATER EXPERIENCE

1,200+
MILES OF PIPELINE
Water and wastewater conveyace pipelines planned, designed or constructed



750+
PUMPING STATIONS
Varying in complexity and capacity

C.3.1 Water, Sewer, Reuse and Stormwater Infrastructure

Water and Sewer

Gannett Fleming has ***designed more than 750 pumping stations*** ranging in capacity from 0.2 mgd to 395 mgd. Intercepting sewers up to 96 inches in diameter, new large diameter force mains and parallel force mains up to 60 inches, rehabilitation of existing force mains, and ***thousands of miles of water mains*** up to 102 inches have been designed for installation by open-cut or trenchless technology in densely populated urban sections and environmentally sensitive rural areas.

When it comes to pipeline expertise, our staff has unmatched experience analyzing the steady and transient state conditions of transmission and distribution systems. Gannett Fleming's pipeline project experience includes ***nearly every type of environment found in the eastern United States***. We know the advantages, disadvantages, and applicability to the specific project needs of the many methodologies available. Our prior projects include work near streams and waterways, work in environmentally sensitive areas such as wetlands, work in rock and high groundwater areas, and work in high traffic and congested areas. These projects have included ***extensive coordination with local utilities, highway officials, regulatory agencies, environmental groups, and area citizens.***

Our capabilities include in-house support with pipeline analysis, including hydraulic modeling as part of our preliminary design services. Our team has experience working with this software, such as Innovyze® or Bently WaterGEMS®, for gravity and pressurized systems.

Our experience also includes design of pumping facilities using horizontal centrifugal pumps and vertical turbine pumps with constant or variable speed motors (using diesel or gas engines).Several of our larger pumping station designs incorporate screening and grit removal facilities in the wet well area of the station. Most of these designs combine flow metering, standby power generating facilities, ventilation, odor control facilities, and alarm telemetry systems.

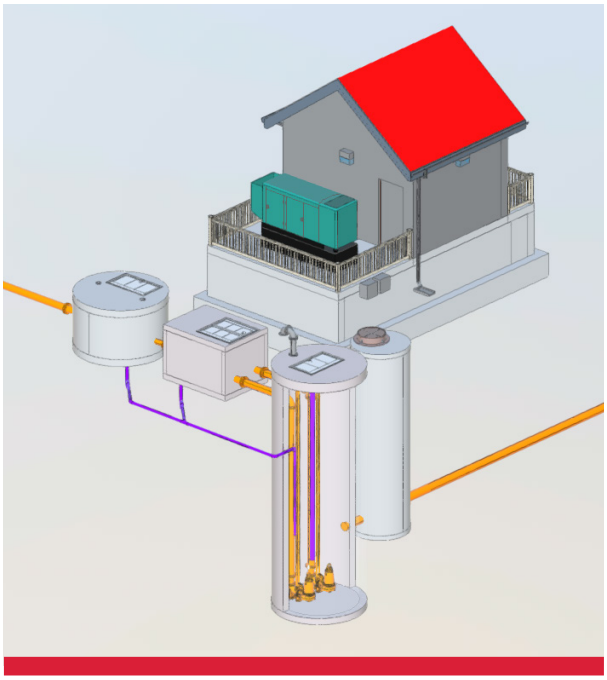


Figure C.3-1. Hampton Roads Sanitation District (HRSD) Larchmont Pump Station Replacement. Gannett Fleming is providing design and construction solutions for five new sanitary sewer pump stations, gravity sewer lines and force mains.

Reuse

Driven primarily by insufficient supplies of potable water, ***reuse has become a critical part of the economy.*** Reinjection of treated wastewater can significantly improve groundwater table levels in karst regions where sinkhole formation is prevalent. Treatment alternatives can be developed and implemented to recycle wastewater within a client's facility. We even reuse for irrigation in areas such as golf courses, public R/W, or as an aquifer recharge for controlling salt water intrusion.

Gannett Fleming offers a broad array of services that are required to implement a reclaimed water system. We provide master planning, design, hydraulic modeling, construction coordination, operation and maintenance services, financing assistance, regulatory liaison and public awareness programs for the piping of reclaimed water. We have gained valuable experience in the development of reclaimed water systems as well as the design of advanced treatment technologies that may be an important component of a reuse system.

Stormwater

Stormwater runoff is a valuable natural resource, but it can also wreak havoc on a community. ***Municipal, state, federal, and private clients look to Gannett Fleming for effective and sustainable stormwater solutions.*** We perform comprehensive services in-house, enabling us to offer clients greater project control, better quality, reduced risk, and a maintainable schedule and budget. From planning to design and implementation, we assure only the highest quality deliverables.

The complex regulatory landscape is continually evolving, and as such, can be a moving target. Gannett Fleming keeps a finger on the pulse of stormwater legislation. We track changing trends in the regulatory framework and advise our clients on how they affect their projects and programs. Our state and local regulatory experience includes working with FDEP, Broward County Environmental Protection and Growth Management Department, Miami-Dade County Department of Environmental Resources Management (DERM), SFWMD, U.S. Environmental Protection Agency (EPA), and National Oceanic and Atmospheric Administration (NOAA). Our expertise in national legislation, such as the Clean Water Act, including Total Maximum Daily Loading, the National Pollutant Discharge Elimination System (NPDES), USACE wetland permits, and Federal Emergency Management Agency (FEMA) floodplain permits, combined with ***our in-depth knowledge of state and local regulations, helps our clients stay ahead***.

Gannett Fleming envisions solutions beyond traditional gray infrastructure. We lead the way in low-impact development and stormwater best management practices that mitigate primary pollutants at the source, reduce the volume of combined sewer overflows, and help make communities more resilient.

Our stormwater projects in the energy, water, waste, transportation, and air industries contribute to our ***consistent recognition by Engineering News-Record as one of the nation's Top Green Design Firms*** (currently ranked at #51). As a charter member of the Institute for Sustainable Infrastructure, our firm is a major contributor to the development and maintenance of a universal rating system for all civil infrastructure. When you partner with us for your stormwater needs, we will work to achieve your goals in the most socially and environmentally responsible way possible.

Resiliency

Climate change and resiliency are an important part of our strategy. Gannett Fleming has more than 120 professionals with Envision Sustainability Professional certifications issued by the Institute for Sustainable Infrastructure providing solutions that integrate sustainability and resiliency considerations in our projects. Our diverse team includes leaders from throughout our multi-disciplinary firm who are at the ready to support our clients with the tools, services, and specialized expertise necessary to prepare and recover from a disaster. Our approach to resiliency goes hand-in-hand with sustainability. ***By protecting, improving, and strengthening systems and infrastructure, we can address emerging risks with forethought and efficiency and improve a facility, system, or organization's ability to rebound and recover from an event.***

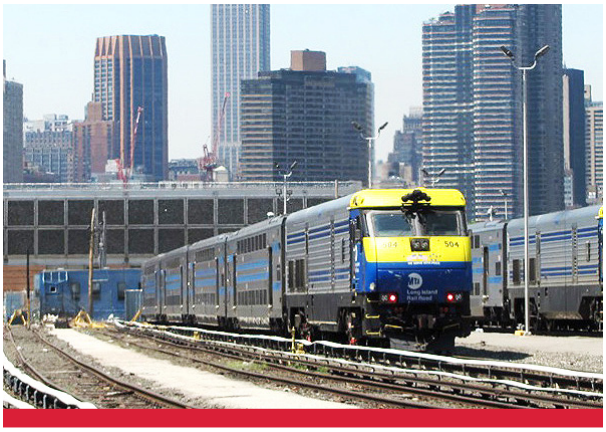


Figure C.3-2. The Long Island City (LIC) Yard. LIRR implemented restoration (recovery), integrated mitigation/resiliency, and stand-alone mitigation elements at the LIC Yard as a result of significant flooding and damage from a storm surge caused by Superstorm Sandy. Gannett Fleming is providing environmental mitigation and improvements to "harden" the area against future storm events while maintaining continuous operations in the LIC Yard. These improvements include the installation of a flood wall and flood gates around the perimeter of the yard to mitigate future storm surge flooding and damage.

Lead Service Line Replacement (LSLR)

GeoDecisions is the GIS/IT and Innovation Division of Gannett Fleming. GeoDecisions is also a Platinum Business partner of Esri, developers of the premier GIS software used in the water industry. As an Esri Platinum partner, GeoDecisions is heavily involved with the development and updates to many of the spatial tools and applications Esri provides. ArcGIS Insights is an example of one of those applications.

GeoDecisions prioritizes LSLRs using ArcGIS Insights to ***enrich the results of prioritization and provides customers with statistical and predictive data to plan for lead testing and replacement strategies.*** GeoDecisions is assisting more than a dozen water operations in several states with deployment of the Lead Service Line Inventory (LSLI) ArcGIS solution. The LSLI solution provides the templates for ***mapping the utility line/ service line status, material, source of information and replacement needs***. The solution is customized to the water operation specific approach in terms of available screening source data and inspection needs. We have also developed proven and widely-used GIS based tools specifically designed to assist both the local government and utilities markets. ***Our team is prepared to be your partner to use these technologies in building applications to support the Lead, Copper, and other related programs.***

Figure C.3-3. Using Technology for Lead Service Line Replacements. An Esri™ Platinum Partner, Gannett Fleming uses the ArcGIS platform for our utility clients to provide a remote-accessible, centralized data and records environment improving overall asset management and planning. We work in close coordination with Esri, developing technology integration with Utility Network deployments and capital planning applications. Many of our resources available to the City possess an average of more than 10 years supporting both local government and utilities industries.

C.3.2 QA/QC and Value Engineering

Gannett Fleming is committed to quality in all of our services through application of an effective and robust Quality Management System (QMS), certified under the ISO 9001:2015 Standard, that maintains a culture of consistency in work products, continual improvement of our processes, and innovation in our technical solutions. Responsibility for meeting these principles is held at the highest level within the organization so that ***we achieve the objectives of our projects while bringing high value to our clients***.

In terms of value, as capital improvement project costs escalate, it has become increasingly important to evaluate each project in regard to its costs and to identify potential areas of cost reduction. Gannett Fleming has long recognized this important phase of a project's development and has cultivated the experienced staff required to perform this task. The purpose of value engineering studies has been to identify, prior to construction, areas of a project that potentially have unnecessary costs, to formulate ideas, propose alternate methods for achieving beneficial changes in these areas, and to develop recommendations which are ***cost saving and/ or improve performance and reliability***. The underlying goal of this effort is to provide essential functions at the lowest life cycle cost. A successful study is dependent on the technical expertise and training of the team members.

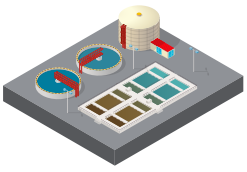
For decades, Gannett Fleming has completed hundreds of feasibility studies and facilities planning projects for W/WW facilities. We then use ***innovative technologies and a green approach to achieve practical designs that provide clients with a fair return on investment***. Our success is measured through long-term client relationships and satisfaction evaluations. With our clients, our professionals identify issues, define challenges, establish success criteria and develop solutions addressing all aspects of water resources. From planning to management, from supply development to extraction, from treatment to conveyance and from use to reuse, our services yield solutions meeting clients expectations and requirements.

C.3.3 Water and Wastewater Treatment Projects

Gannett Fleming has extensive experience in the study, design, and construction of water treatment facilities. In addition, our team has extensive experience in optimizing all types of water treatment facilities to satisfy current and pending drinking water regulations. Gannett Fleming waterworks experts optimize all types of water treatment facilities to satisfy drinking water regulations. Our firm has investigated, evaluated, designed, constructed, and supervised the startup and operation of more than 35 plants during the past decade alone. We treat a wide variety of raw water sources, including surface and groundwater, and assess the impacts of watershed and protection activities on water quality. We take pride in our ability to devise and implement improvements that are sensitive to and accepted by facility operators.

Gannett Fleming is also one of the premier wastewater engineering companies in the United States. Our clients achieve maximum return on their engineering investment through Gannett Fleming's synergistic approach to wastewater design engineering. For decades, Gannett Fleming has designed, managed construction, and provided start-up and operational services for hundreds of wastewater treatment facilities, ranging from 0.01 mgd to 250 mgd. We employ the latest technologies, including state-of-the-art biological nutrient removal processes and toxics control. Our knowledge of process principles and design practices enables the solid engineering judgment necessary for quality projects.

GANNETT FLEMING'S
WATER AND WASTEWATER TREATMENT EXPERIENCE



600+
WTP AND WWTPs
Plants that range from less than 0.01 mgd - > 1.25 bgd

C.4 RELEVANT PROJECTS

We understand that this infrastructure contract will affect multiple water and sewer lines as well as pump stations, all in residential/commercial and congested areas. Given the age of the area's infrastructure, multiple underground utilities will be affected by the project's construction, with the potential relocation requirements, highly trafficked intersections, and a water crossing of the Intercoastal waterway. The design and construction of these improvements will require significant permit approvals and buy-in from stakeholders, from the City's project staff, local utilities, Broward County, USACE, FDOT and the affected residents and businesses. The Gannett Fleming team has extensive project experience, a local presence, and local permitting and regulatory requirements knowledge, and will perform technically sound services for this contract. We have the experience and track record for managing technical and non-technical complexities during planning, design and construction of projects with the similar scopes.

Relevant project experience can be found below and on the following pages. Vendor Reference Forms for select projects can be found under Tab G.

S-27 FORWARD PUMP STATION AND GATE STRUCTURE IMPROVEMENT, MIAMI, FL

SFWMD

Type of Infrastructure

Stormwater
Pump Station

Services Provided

- ✓ Studies
- ✓ Design
- ✓ Value Engineering
- ✓ Constructibility
- ✓ QA/QC
- ✓ Permitting
- ✓ Modeling
- ✓ Risk Mitigation
- ✓ Resiliency/Sea-Level Rise Considerations

Key Personnel Involved

Yurfa Glenny
Carolina Cubides
Lilian Marrero
Anthony Costello
Scott Burch
David Butts

The S-27 Forward Pump Station and Gate Structure Improvements project seeks to improve the flood protection level of service (FPLOS) and the capacity for "forward flow to Biscayne Bay via the C-7 canal considering future sea level rise (SLR) projections. Gannett Fleming and another firm are currently working together as a Joint Venture to develop the detailed design for the new S-27 Flood Control Pump Station and supporting infrastructure with consideration of sea level rise and design of storm elevations, including a Generator and Control Building, Fuel Farm, and Gate Structure Improvements. In addition, Gannett Fleming provided topographic surveys and Hydrologic and Hydraulic (H&H) modeling to optimize the layout for the facilities.

The S-27 forward flow pump station and gate improvements project consists of design of a new pump station to convey a nominal flow of 1,500 cubic feet per second (cfs) via three intake bays; each intake bay equipped with debris removal system to protect the pumps from damage. Each pump driver consists of 650 horsepower outdoor rated electric motors. Necessary facilities to support pump station and gate structure operations include a new Generator/Control Building and onsite Fuel Farm for above grade fuel storage. Two diesel powered emergency generators (redundant second generator) shall provide uninterrupted power to the facility for seven days continuous operation. Each generator was sized to run all three pumps.

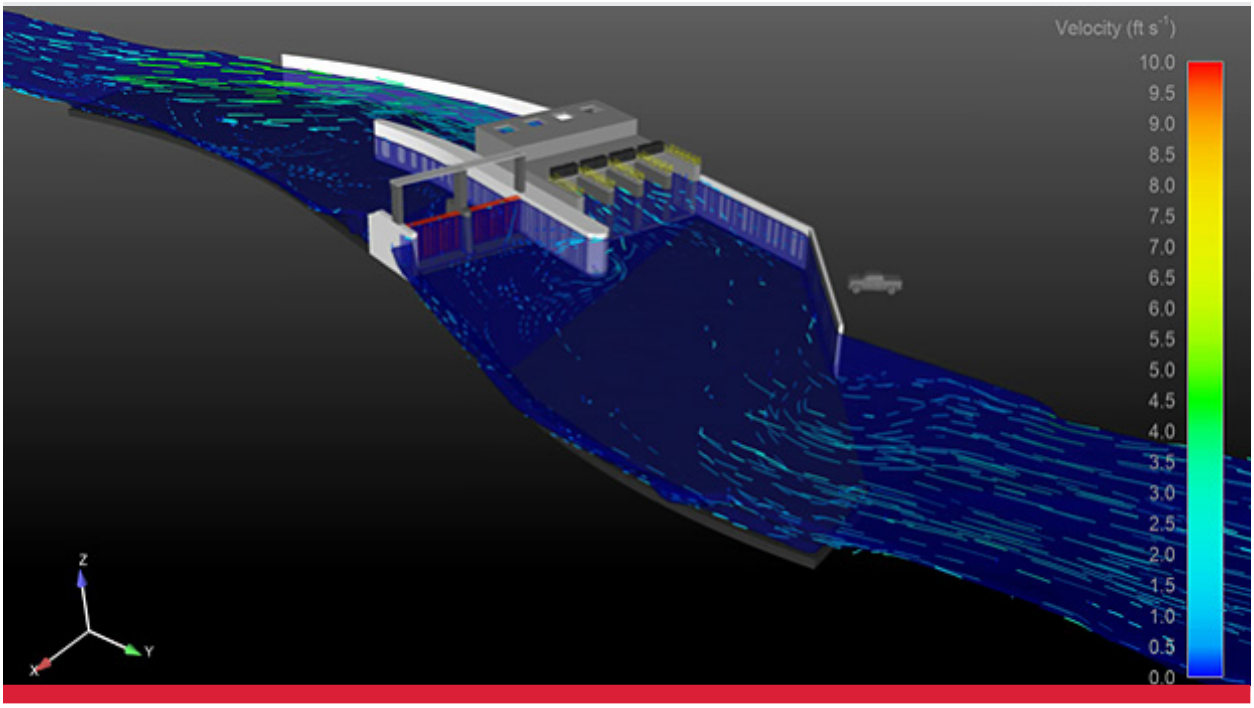


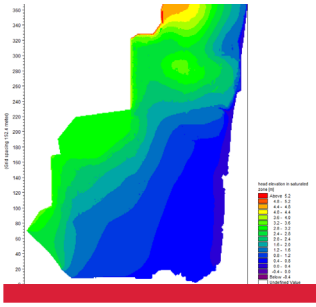
Figure C.4-1: Computational Fluid Dynamics (CFD) Model. Example Output from the 3-D CFD Model showing 3-D velocity plots for the S-27 Pump Station and Gate Structure.

Structural improvements and rehabilitation the existing S-27 flood control gate structure designed including the replacement of vertical lift gates with stainless steel type 316L/316 gates, and manatee protection system are included in this project. SFWMD scope of services include field investigations including topographical survey and geotechnical investigations, CFD modeling, physical modeling, project management, multidisciplinary design including site civil, mechanical, architectural, structural, geotechnical, electrical, instrumentations and control. Additionally the project team is supporting SFWMD with project information to support the FEMA funding application process.

Evaluation of the existing hydrologic conditions and operational parameters of the gate structure, historical canal flow conditions was performed for forecasting multiple configuration for future conditions. These were also compered with past evaluations led by SFWMD and the Southeast Florida Regional Climate Change Compact's ("the Compact"). As results of this evaluation and with input from SFWMD, the entire project site will be elevated from approximately 5ft National Geodetic Vertical Datum (NGVD) elevation to 8 ft NGVD elevation to address resiliency considerations, while maintaining operational and maintenance accessibility.

Hardening feature for protection of critical assets are also embedded into the design by adding elevation to the finish floor elevation, locating generator louvers openings above storm surge projections, adding flood protection features for entrances and/or openings, relocate overhead power to underground, elevate or flood proof instruments, among other. The CFD modeling was completed to evaluate projected velocity profiles for the interaction between the pump station, canal and gate operations. More than 12 scenarios were set and more than 100 simulations were run for existing and design conditions.

Gannett Fleming completed services for the S-27 Forward Pump Station and Gate Structure Improvements on time and within budget.



C-51 RESERVOIR PHASE II STUDY, MIAMI, FL

SFWMD

Type of Infrastructure

Waterways

Services Provided

- ✓ Evaluations
- ✓ Value Engineering
- ✓ Constructibility
- ✓ Modeling
- ✓ Risk Mitigation
- ✓ Resiliency

Key Personnel Involved

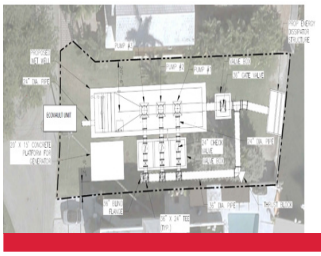
Scott Burch
Benjamin Israel-Devadason

The coastal canals of Palm Beach and Broward Counties are at risk of saltwater intrusions due to sea-level rise. To reduce these adverse impacts, SFWMD contracted Gannett Fleming to perform the C-51 Phase II Reservoir Study to identify a path forward in protecting its waterways. This study assessed the feasibility of routing water from the C-51 Reservoir through an existing network of coastal canals. This, in turn, would raise the canals' average water surface elevation and increase infiltration into the lower aquifer.

The goal of this study was to identify the volume of water necessary to slow, stop, or reverse the inland movement of saltwater from key locations along the southeast coast; the necessary volumes of water to release from the reservoir; and the appropriate conveyance pathways and infrastructure improvements to transfer these volumes. Our team leveraged existing modeling tools such as HEC-RAS and MIKE SHE/11 to extrapolate seepage data, test the routing performance of additional flow control structures and pumping stations, and calculate flux based on these modified structures and flow paths. The study also included developing a high-level estimate of cost and benefit of the project.

Based on this study, Gannett Fleming concluded that the concept of increasing the operating water surface elevations upstream of the coastal salinity control structures in Broward County can have a positive impact on saltwater intrusion. While this study provided a high level evaluation and indicates that the proposed mitigation plan can be effective during drought conditions, we recommended that further, more detailed studies be performed to evaluate the efficacy and potential impacts of the proposed mitigation plan under normal rainfall and flood event conditions. We also recommended that future studies be performed to address potential impacts to water quality and flood risk.

As a result, Gannett Fleming provided SFWMD with recommended next steps to divert and ultimately reduce damaging saltwater discharges in its northern estuaries and Lake Worth Lagoon, protecting its coastal communities from future sea-level rise impacts.



LAKE BELMAR PUMP STATION, MIAMI, FL

MIAMI-DADE COUNTY DEPARTMENT OF TRANSPORTATION & PUBLIC WORKS (DTPW)

Type of Infrastructure

Stormwater Pump Station

Services Provided

- ✓ Design
- ✓ Constructibility
- ✓ QA/QC
- ✓ Permitting
- ✓ Modelling
- ✓ Estimating
- ✓ Scheduling
- ✓ Risk Mitigation
- ✓ Resiliency/Sea-Level Rise Considerations

Key Personnel Involved

Keisha Westbrook
Carolina Cubides
Yurfa Glenny
Lilian Marrero
Anthony Costello
Brian Seip

Miami-Dade County DTPW needs to install a new pump station in the area of Lake Belmar to mitigate flooding. The proposed pump station will be located at the empty land within County Right of Way located East of the intersection of Bayshore Drive and NE 88 Street. The primary service area for the pump station is bound by the Biscayne Boulevard on the west, Biscayne Bay on the east, N.E. 91st Street on the north, and N.E 87th Street on the south. This neighborhood in Miami-Dade County includes mostly residential developments and some commercial and office developments. The stormwater pump stations project consists of the evaluation of two pre-treatment units to determine the feasibility to reduce or limit potential nutrient loading from runoff into Biscayne Bay and provide recommendations to DTPW on recommended technology.

Gannett Fleming provided services including sizing and design for a new 90 cubic feet per second (cfs) stormwater pump station with configuration of 3 submersible pumps, new wet well structure, electrical improvements, standby power generation facility, Supervisory Control and Data Acquisition (SCADA), sea level rise (SLR) consideration, water quality pretreatment system evaluation. The pump station will be inclusive of a new energy dissipating structure as outfall to comply with required velocities into Bay and outfall location. The submersible pumps are suspended from top off the wet well slab inside vertical can with intake bell configuration. From the wet well, stormwater will be pumped to an energy dissipator structure with the purpose of reducing the discharge velocities and mitigating erosion in Biscayne Bay. The team is coordinating with FPL to ensure a power feed is provided to meet the required horsepower capacity.

Upstream of the pump station a multistage filtration system will capture sediment, litter, foliage, phosphorous, nitrogen, heavy metals, hydrocarbons, and other organic materials, and allow for nutrient removal prior to discharging into Biscayne Bay. Hydrologically, this new pump station must meet functional objectives considering current design storm criteria and future SLR projections for South Florida. Site specific adaptive management strategies are being considered throughout the design to harden the facility against future SLR, including elevating elements critical to maintaining the facility in operation such as control panels, emergency generators, and fuel storage above Category 5 Storm Surge elevation.

The scope of services include project management, multidisciplinary design including site civil, mechanical, architectural, structural, geotechnical, electrical, instrumentations and control.

SR 5/US 1/N. FEDERAL HIGHWAY FROM SR 824/ PEMBROKE ROAD TO SR 822/SHERIDAN STREET, BROWARD, FL

FDOT

Type of Infrastructure

Stormwater Solutions

Services Provided

- ✓ Planning
- ✓ Design
- ✓ QA/QC
- ✓ Utility Coordination
- ✓ Risk Mitigation

Key Personnel Involved

Alejandro Uribe
Alina Fernandez

In an effort to promote increased bicycle usage and pedestrian transportation facilities throughout the district, FDOT District 4 (the District), in partnership with the City of Hollywood, sought a consultant to support the improvements to these facilities throughout the District. The primary scope involved the milling, resurfacing, and restriping SR-5/US-1 to accommodate bicycle facilities as well as improving the sidewalks.

As a subconsultant to Trace Consultants, Gannett Fleming provided professional services related to drainage analysis, traffic control plans, and lighting design, in support of the Bike Lanes project. Gannett Fleming worked with the District to develop the proposed improvements, including reducing inside lane widths from 11-foot to 10-foot to allow for a 4-foot bike lane, installing decorative crosswalks at signalized intersections, installing Americans with Disabilities Act (ADA) compliant curb ramps and/or detectable warning surfaces at existing pedestrian ramps, pruning of trees within sidewalk as needed and installing ADA compliant tree grates, replacing sidewalks along both sides of SR 5 with decorative pavers from Monroe to Fillmore, installing decorative sidewalk pavers at approaches to pedestrian ramps, replacing damaged sidewalk sections, new LED pedestrian level light fixtures, converting existing lighting to LED, and lighting retrofit at signalized intersections.

ALTON ROAD STORMWATER PUMP STATION, MIAMI, FL

FDOT

Type of Infrastructure

Stormwater Pump Station

Services Provided

- ✓ Planning
- ✓ Design
- ✓ Utility Coordination
- ✓ Value Engineering
- ✓ Permitting
- ✓ Estimating

Key Personnel Involved

Alina Fernandez

The Gannett Fleming team, under the General Consultant Engineering Services for FDOT, is providing professional services for the drainage improvements associated with the reconstruction of Alton Road from Michigan Avenue to the bridge over Biscayne Waterway (Bridge #870710). Scope includes evaluation of project requirements for the milling and resurfacing of SR 907 and SR 907A from the bridge over the Biscayne Waterway to 43rd Street, and spot reconstruction along SR 907A and SR 112. Designs will be inclusive of electrical, instrumentation, process mechanical, and site civil design services through the 100% phase completion.

A need was identified for a new stormwater pump station providing drainage design services for the Alton Road project from Michigan Avenue to 41st Street, including the design of two drainage pumps, inclusive of Best Management Practices (BMPs) as pretreatment, outfall piping and structure, and ancillaries required for a functional facility. This drainage and pump station design will comply with the latest Miami Dade County Department of Regulatory and Economic Resources (DRER) Water Control Section and Coastal Resources Section permit criteria for maximum allowable outfall velocities, outlet erosion protection, sediment and turbidity control and environmental coastal resources permit requirements. The project also includes project management and coordination, storm drain analysis and design, drainage well analysis and design, preparation of contract documents, permitting support.

WASTEWATER SYSTEM PRIORITY PROJECTS, MIAMI, FL

MDWASD

Type of Infrastructure
Pump Station
Reuse
Wastewater Treatment

Services Provided
- ✓ Evaluations
- ✓ Design
- ✓ Value Engineering
- ✓ Constructibility
- ✓ QA/QC
- ✓ Permitting
- ✓ Modelling
- ✓ Estimating
- ✓ Scheduling
- ✓ Construction Management

Key Personnel Involved
Carolina Cubides
Abnery Picon
Yurfa Glenny
Elik Livay

The Ocean Outfall Legislation (OOL) requires southeast Florida utilities to eliminate normal use of ocean outfalls by the end of 2025, except under certain defined conditions. The law also mandates a minimum amount of reclaimed water reuse and nutrient reductions prior to 2025. As a subconsultant, Gannett Fleming is providing qualified project managers, construction managers, and technical staff during implementation of the $7B OOL Program. Gannett Fleming's project management and technical team engaged as an extension of program management, developing technical approaches for implementation of designs at the three WWTPs: Central District WWTP (CDWWTP), North District WWTP (NDWWTP), and South District WWTP (SDWWTP).

- **NDWWTP Technical Services.** Gannett Fleming served as Project Manager for the Conceptual Design Report developed to meet OOL requirements at the 120 mgd NDWWTP. Through the OOL Compliance Plan, MDWASD identified the need to construct high-level disinfection (HLD) facilities and deep injection wells to discharge secondary effluent and reduce discharge to the ocean. Gannett Fleming was responsible for process mechanical conceptual design for conversion of the existing Effluent Pump Station (EPS) into a dual-purpose pump station serving the outfall and the HLD facilities. The team considered the use of the outfall by gravity with pumps under peak flow conditions and evaluated the impact of the projected sea level rise.
- **NDWWTP Project Management Services.** We served as the Project Manager for design of the HLD facilities including filters building, electrical sub-station, sodium hypocrite storage facility, and chlorine contact tank, with capacity to treat 75 mgd. We were the Project Manager for design of the 75 mgd injection well pump station project, which included five injection wells, two monitoring wells and the effluent loop connecting the structures.
- **SDWWTP Deep Injection Well Construction.** Gannett Fleming led construction management for the injection wells construction. These consisted of drilling three 24-inch diameter steel casing injection wells, each with capacities of 18.6 mgd. The objective of this facility is to increase capacity for effluent disposal and comply with the OOL mandate.
- **SDWWTP 36-inch Return Activated Sludge (RAS) Pipeline Construction.** Gannett Fleming provided construction management services for construction of a 36-inch RAS pipeline connecting the existing RAS Pump Station No.1 to the Oxygenation trains.
- **SDWWTP Project Management Services.** We served as the Project Manager for design of the Clarifier and HLD facilities including six filters modules. Gannett Fleming is also the Project Manager for design of a chlorine contact tank, three injection wells, and the pipeline connecting the injection wells to the existing effluent loop.

MASTER SERVICES AGREEMENT FOR WATER/WASTEWATER PROJECTS, VARIOUS LOCATIONS, VA

VIRGINIA AMERICAN WATER (VAW)

Type of Infrastructure

Water Pipeline
Water Treatment
Pump Station
Wastewater Treatment

Services Provided

- ✓ Planning
- ✓ Evaluations
- ✓ Design
- ✓ Value Engineering
- ✓ Constructibility
- ✓ QA/QC
- ✓ Utility Coordination
- ✓ Permitting
- ✓ Modelling
- ✓ Estimating
- ✓ Scheduling
- ✓ Construction Management

Key Personnel Involved

Yurfa Glenny
Elik Livay
Jessica Hou
Tiffany Harrison
Brian Seip
Sophia Liskovich
Vladimir Cecka

Gannett Fleming has provided engineering and construction management and inspection services on W/WW projects for American Water for more than 50 years. In the last five years, Gannett Fleming has provided more than $5M in planning, design, and construction management services for VAW under the MSA. Almost 50 discrete tasks have been performed in that timeframe. VAW regularly involves Gannett Fleming in project validation, ad hoc planning and collaborative decision making.

Water Main Design. Gannett Fleming provided design services, including supervising subconsultants for surveying, geotechnical engineering, and utility location, for water main replacement design in Alexandria, Prince William, Fort Lee, and Hopewell Districts. Plans are customized to be used by VAW's on-call contractors to replace these aging assets. Multiple Gannett Fleming design teams are managed as an overall program, with overlapping schedules and deliveries with 15 discrete design projects in the last three years. Our teams remain flexible to changes in design schedules, scopes, and field conditions to deliver quality designs with minimal construction issues. We focus on communication and agility to program changes to support VAW's programmed Capital Improvement Plan (CIP) goals.

- **East Nelson Street Water Main Replacement.** Gannett Fleming designed the replacement of approximately 1,800 Linear Feet (LF) of 6-inch cast iron water main on line on East Nelson Avenue and Leslie Avenue with an 8-inch ductile iron pipe, including design of connections to existing mains and transferring services, valves, and hydrant laterals.
- **South and North Washington Street Water Main Design.** Gannett Fleming designed 5,530 LF of 8-inch ductile iron pipe, designed connections to the existing mains on Gibbon Street and Montgomery Street, and provided coordination and project management services .
- **Old Town Alexandria Water Main Upgrades.** Gannett Fleming provided design and construction inspection services for the water main upgrades. The majority of the work was in active roadways and involved the installation of new water mains; replacement of more than 75,000 LF of aged cast iron and transite water mains; new residential and business connections; and new fire hydrant connections and installations. We were also responsible for the accurate documentation of installed conditions. On a daily basis, we verified materials used, recorded locations of the materials installed, and provided as-built field sketches for three to five separate job locations. The majority of the project work was performed during non-rush-hour times to avoid disruption

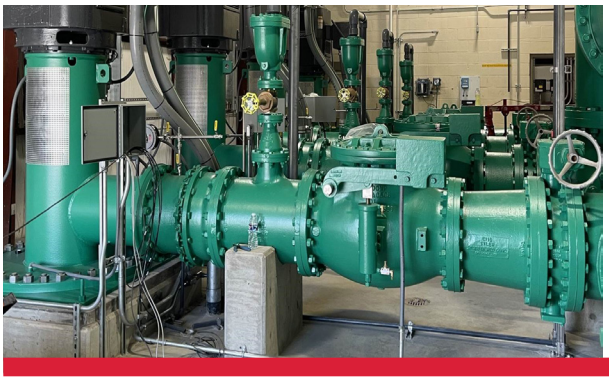


Figure C.4-2. Hopewell WTP Pump Station. To provide the existing WTP with ultraviolet (UV) disinfection treatment, advanced oxidation potential treatment for tastes and odors, replacement of their 100-year-old industrial pumping station, and replace and add chemical systems, Gannett Fleming, as part of a team, provided design-build services for improvements to VAW's WTP.

to Alexandria's morning/evening commuters; progressed on schedule; and was completed within budget.

- **Eisenhower Avenue Water Main Interconnects.** Gannett Fleming provided construction management services, which included the connection of two water zones with a 14-inch, DR-11, High-Density Polyethylene (HDPE), and 12-inch Ductile Iron Pipe (DIP) by a combination of open trench and Horizontal Directional Drilling (HDD) methods to install the new water main under Cameron Run. Approximately 584 feet of 14-inch DR 11 were installed by HDD about 20 feet beneath Cameron Run, and approximately 223 feet of the alignment consisting of 12-inch DIP pipe installed by open trench.

Hopewell WTP Improvements. To provide the existing water system with additional domestic capacity and meet an increasing demand for a higher quality industrial supply, Gannett Fleming, as part of a team, provided design-build services for improvements to the WTP. The unique, dual-natured plant includes both common and separate water treatment facilities, treating water through two separate processes for domestic consumption and industrial use. The facility underwent an extensive series of upgrades designed to increase its filter capacity, storage, pumping, and overall potable system capacity from 12 to 18 mgd. Notable outcomes include improved flow between industrial and domestic pretreatment systems and enabling the plant to go offline 2x as long without service interruption as a result of allocating our construction savings to construct a new standby power generator to maintain plant operations during a power failure. We also used innovative physical models to ensure vortexing at the pump suction bell does not occur. Our firm completed a number of project studies at Hopewell, including wetlands investigations, hazardous materials investigations, hydraulic analysis, a surge study, geotechnical analysis, electrical studies, and structural inspections. Gannett Fleming also provided construction-phase support services.

Dale City WWTPs. Gannett Fleming provided design, owner's representative and construction management services at Prince William District's Section 1 and Section 8, 4.6 mgd WWTPs for safety improvements at primary digesters, secondary digesters, tertiary clarifiers, and gravity thickeners.

Clearwell Tank Inspection. VAW requested an in-service Remote Operated Vehicle (ROV) inspection of the interior portion of two domestic clearwells at the Hopewell WTP to determine the presence of carbon grains that could have been potentially introduced into the clearwell from the upstream carbon contactors. Gannett Fleming provided study services to evaluate and confirm valve attribute information and operational status. Tank details include one 2.5 Mgal steel ground storage tank, and one 2.6 Mgal prestressed concrete ground storage tank, both 100 ft diameter.

ON-CALL ARCHITECT/ENGINEERING OPEN-END SERVICES, ANNE ARUNDEL COUNTY, MD

ANNE ARUNDEL COUNTY DEPARTMENT OF PUBLIC WORKS (DPW)

Type of Infrastructure

Wastewater
Pump Station
Water Pipeline

Services Provided

- ✓ Evaluations
- ✓ Design
- ✓ Value Engineering
- ✓ QA/QC
- ✓ Utility Coordination
- ✓ Modelling
- ✓ Estimating
- ✓ Scheduling
- ✓ Construction Management

Key Personnel Involved

Daniel Jeon
Elik Livay
Sophia Liskovich

Gannett Fleming is performing assigned tasks and projects on an as-needed basis for Anne Arundel County, providing architectural and engineering consulting and design services, as well as construction management and inspection services.

Berkshire, Anchorage I and Riva II SPSs
As part of continuous efforts to upgrade the existing infrastructure in compliance with applicable federal, state, and local requirements and standards, Gannett Fleming provided design services for upgrades to the Berkshire, Anchorage I and Riva II SPSs.

The following are the major scope items for the upgrades the Berkshire, Anchorage I, and Riva II SPSs:

- Pump Replacement
- Grinder System
- Bypass connection
- Electrical, instrumentation and Heating, Ventilation, and Air Conditioning (HVAC) upgrades to comply with National Fire Protection Association (NFPA) 820
- Geotechnical investigation
- Cathodic Protection Evaluation

To accommodate the building-out peak flows, the pumping stations were required to upgrade their pumping systems. Due to the increase in pumping capacity, the pumping stations were required to meet MDE Design Guidelines for Wastewater Pumping Stations that are located within three miles of shellfish waters or swimming waters.

Per this requirement, Gannett Fleming evaluated a two-hour emergency storage capacity in each pumping station and designed an emergency storage tank. The existing wet wells didn't include any screening or grinder system, therefore, Gannett Fleming designed a package FRP manhole grinder system on the 8-inch influent to protect the wastewater pumps from clogging. The package system included a formed channel, a stainless

Gannett Fleming's SPS services included design of an emergency storage tank to accommodate the SPSs' increased capacity to meet MDE requirements, as well as design of a package FRP manhole grinder system on the 8-inch influent to protect the wastewater pumps from clogging.

Figure C.4-3: Berkshire and Anchorage I Pump Stations. Gannett Fleming provided schematic design, design development, construction and bid documents for modifications for three different Sewer Pump Stations (SPS), Berkshire, Anchorage I, and Riva II.

steel cable hook and haul-out chain hook, and a hinged, lockable fiberglass lid.

The cathodic protection (CP) system evaluation was performed to evaluate the existing impressed current CP systems at the stations. The CP survey was performed to determine whether or not the CP system is effectively protecting the structure according to NACE International Standard SP0169.

Value Engineering Program Specification. The County intends to implement a Value Engineering Program to identify potential cost savings and viable scope alternatives for mid- to large-sized capital projects. Gannett Fleming provided professional consulting services to develop a standardized scope of work for a value engineering process. As part of this project, our firm evaluated value engineering standards as well as Anne Arundel County DPW's capital projects and components that were applicable to a value engineering program. We developed the value engineering program specifications where we provided a definition and methodology of the program, conducted Value Engineering Workshops with County staff, and created the procedures for the program to be implemented by the County. Finally, we prepared the Value Engineering Report. This report went through several drafts and very recently was submitted for final review.

Elevated Water Storage Tank (EWST) Evaluations. Gannett Fleming evaluated six EWSTs and determining if any upgrades are required to meet OSHA, MDE (Ten State Standards), or AWWA requirements. The AWWA recommends that EWSTs be inspected and/or evaluated in this manner every three to five years, depending on whether there is an active cathodic protection system in the tank. Our team worked closely with County stakeholders to complete evaluations of each tank and submit reports with drawings, photos, and cost estimates to document the condition of the tanks and their sites. Gannett Fleming then ranked the tanks in terms of required rehabilitation.

Each of our tank evaluations included underwater inspection by ROV. We thoroughly inspected the tank for security, safety, structural integrity, welding condition, coating condition, corrosion, OSHA and AWWA requirements, cathodic protection, instrumentation and electrical features, altitude valve vaults, site conditions, and underground chambers. Our painting and coating inspectors are NACE-certified up to NACE Level III, and our structural inspectors evaluated the vault and other concrete structures to make sure they are safe and in adequate condition.

Following the completion of each tank evaluation, we presented a report with the condition assessment, drawings, rehabilitation recommendations, and a cost estimate reflecting the recommendations to the County for each tank. A final memorandum with tank prioritization recommendations was submitted to the County

to assist them in determining what should be included in their Capital Improvement Plan.

Heritage Harbor 2 Sewage Pump Stations. The County decided to upgrade the Heritage Harbor 2 Sewage Pump Station as part of their continuous efforts to improve existing infrastructure in compliance with applicable federal, state, and local requirements and standards. The County contracted with Gannett Fleming to perform supplemental schematic design services including review of the Schematic Design Report (provided by others), performing a complete ultrasonic study of the dry well to determine structural conditions, and performing a topographic survey of the pump station's access road.

Gannett Fleming completed design services for the pump station upgrade, which consists of replacing the existing suction and discharge isolation valves; upgrading pump station controls to meet the new County standards; installing a new grinder including associated electrical components and appurtenances; replacing existing pumps in accordance with County criteria; installing a cathodic protection system; modifying the valve piping configuration; replacing the existing surge relief valve in the valve vault; and widening the access the road. After further investigation and discussions with the County, it was decided, based on our recommendation, to replace the pump station completely to mitigate risk of failure of the existing structure. We also worked on the construction documents design submission for the complete replacement of the pump station.

The County also indicated they plan to reduce their ventilation requirements for dry wells, which would need to be updated in the County standards. This project involves replacement of an existing metal dry well structure and the process will likely need to be repeated throughout the County at other sites. Gannett Fleming reviewed the Pump Station Design Manual and gave recommendations on specifications to include in the contract documents.

Figure C.4-4. Riedel Road Water Main. Gannett Fleming provided CM/I services, survey, E&SC compliance, and specialized testing for the installation of 3,200 LF of new 16-inch water main.

Water Main Installation

To provide safer, easier maintenance, as well as to provide a more reliable transmission main for the County's water distribution customers, Anne Arundel County is transferring residential and business water services from the existing 30-inch transmission main to a new 16-inch main in Riedel Road.

Gannett Fleming provided construction management and full-time inspection services, survey, Erosion and Sediment Control compliance, and specialized testing for the installation of 3,200 LF of new 16-inch water main, fittings, valves, fire hydrants, and cathodic protection measures. Our services included coordination of project submittals, RFIs, and conducting progress meetings. Gannett Fleming also provided a critical analysis/constructability review of the plans and specifications to identify any possible conflicts or problems and provided a report to the County.

The installation of 24-inch steel casing by bore and jack method under MD Route 3 and installation of 16-inch water main in the new steel casing was also part of this project. Replacement of water service lines and meter vaults was performed as necessary. The project included chlorination and testing of the new mains and service connections, investigating site conditions, and providing reports to the County. We also oversaw maintenance of traffic, roadway repairs, and site restoration.

FEREBEE AND PARK AVENUE PUMP STATION REPLACEMENTS AND SANITARY SEWER 1950 FORCE MAIN AND GRAVITY REPLACEMENT, CHESAPEAKE, VA

HAMPTON ROADS SANITATION DISTRICT (HRSD)

Type of Infrastructure

Sewer
Pump Station
Stormwater Pipeline

Services Provided

- ✓ Evaluations
- ✓ Design
- ✓ Value Engineering
- ✓ Constructibility
- ✓ QA/QC
- ✓ Permitting
- ✓ Modeling
- ✓ Estimating
- ✓ Scheduling
- ✓ Risk Mitigation

Key Personnel Involved

Keisha Westbrook
Yurfa Glenny
Tiffany Harrison
Elik Livay
Jessica Hou
Dennis Funk
David Butts
Michael Doherty
Brian Seip
Brian Shifflett

Dating from the 1950s and earlier and nearing the end of their useful lives, the Ferebee Avenue and Park Avenue Pumping Stations were identified for replacement to meet the needs of HRSD's growing Chesapeake consumer population and achieve compliance with EPA plan requirements. The EPA's two-phase Rehabilitation Action Plan and Regional Wet Weather Master Plan includes the Ferebee and Park Avenue Pumping Stations as well as the connecting pipeline between the two stations, identified as Project 1950. To address the EPA Rehabilitation Action Plan regulatory driver, HRSD hired Gannett Fleming to develop a Preliminary Engineering Report (PER) and provide design, permitting (including a JPA), preconstruction, contract administration, field engineering and inspection, startup and testing, operations and training, and post-startup and certification. Following condition assessment of the pumping stations, pipelines, and force main, we determined in the alternatives analysis that the pumping stations and pipelines would be replaced due to capacity and condition. Some existing gravity main will remain in use.

The Ferebee Avenue Pumping Station consists of a 3.2 mgd (proposed 5.6 mgd) wet well/dry well structure and a masonry building with three dry pit submersible pumps with an ultimate capacity of 3,900 gpm. The Park Avenue Pumping Station is an 8.5 mgd (proposed 11.4 mgd) wet well/dry well structure and a masonry building with four dry pit submersible pumps with an ultimate capacity of 7,900 gpm. The existing pipeline between the two stations consists of approximately 7,000 LF of 12-inch force main and 24- and 18-inch gravity sewer, with updated design expected to include 2,600 LF of 12-inch force main, and 6,600 LF of 30-inch gravity main to connect the new pumping stations.

As part of the alternatives analysis, we used a triple bottom line approach in accordance with HRSD's values to consider social, environmental, and financial considerations for our decisions, and used pairwise comparison software to narrow down the recommendations. The goal of the detailed evaluation phase was to qualitatively evaluate each of the top three alternatives to identify the preferred alternative for each project.

Gannett Fleming worked with a sub-respondent to provide early environmental data to support our decisions. We also mobilized our geotechnical sub-respondent to gather high-level soils information prior to performing borings in the design phase. Environmental impact criteria incorporated location within the 100 and 500-year floodplain, wetlands identification, environmentally critical areas, soils, forested areas, storm water management, and historical/archaeological impacts. We used this information to eliminate pipeline route alternatives.

Figure C.4-5. Ferebee and Park Avenue Pump Station Pipeline Design. The existing pipeline between the two stations consists of approximately 7,000 LF of 12-inch force main and 24- and 18-inch gravity sewer. Gannett Fleming's updated design is expected to include approximately 2,600 LF of 12-inch force main, and 6,600 LF of 30-inch gravity main to connect the new pumping stations.

We have involved HRSD's Communications Department in the decision making since our first project meeting. They have provided an important perspective from the earliest phases of alternative exploration, screening, and evaluation to prioritize the consideration of homeowners, business owners, schools, and community stakeholders. Social impact criteria included community aesthetics, impacts to the community, traffic impacts, and service interruption.

We have been providing preliminary engineering and began the design, on schedule, in October. These three projects are part of Phase 2 of the EPA's Rehabilitation Action Plan and are required to be completed before May 5, 2025. Survey, soil borings, corrosion soil testing, and wetlands delineation are completed. Design elements include open concept drywells, the ability to cover a wide range of hydraulic conditions, and future expansion to post 2030 conditions.

We are providing a high level of communications strategy support to HRSD. This project includes multiple opportunities for stakeholder engagement, community enhancement, and environmental restoration. We will be planning educational events with two Chesapeake Public Schools and designing restorative environmental elements in concert with the Elizabeth River Project.

To date, Gannett Fleming's services for the three projects are progressing on schedule to comply with Phase 2 of the EPA's Rehabilitation Action Plan and be completed before May 5, 2025.

Gannett Fleming used the Envision checklist during the alternatives analysis for Park Avenue Pump Station and this project is the first HRSD has registered on the Envision website for future recertification.

SANITARY SEWER AND PUMP STATION REHABILITATION, VIRGINIA BEACH, VA

CITY OF VIRGINIA BEACH

Type of Infrastructure

Sewer
Pump Station
Stormwater Pipeline

Services Provided

- ✓ Planning
- ✓ Design
- ✓ Value Engineering
- ✓ QA/QC
- ✓ Utility Coordination
- ✓ Permitting
- ✓ Estimating
- ✓ Scheduling

Key Personnel Involved

Jessica Hou

In early 2014, the City of Virginia Beach selected Gannett Fleming to provide annual engineering services. Gannett Fleming completed work on several task orders under this contract term.

For the sewer rehabilitation within Brandon Boulevard and Zimmerman Court, Gannet Fleming provided condition assessment and design services for the replacement of approximately 800 LF of 8-inch sanitary sewer. Design services included review of City collected CCTV and preparation of a PER for the replacement and rehabilitation of the mainline piping, manholes, and service laterals. We then performed topographic survey and conducted Level B Subsurface Utility Engineering (SUE) to identify underground utilities.

This project was complicated by the presence of common service laterals. As part of the design, the design team needed to separate common service laterals where appropriate to better locate lateral clean-outs outside of paved surfaces. Additional complications included providing adequate space for the passage of emergency vehicles within the narrow neighborhood streets during construction.

For the PS 117 replacement, we performed an investigation, condition assessment, and preliminary and final design to replace PS 117 in an alternate location. The new station is a wet well/dry well design with a capacity of 1.3 mgd with permanent diesel providing emergency backup and additional capacity for extreme wet weather events. Additionally, we designed the re-alignment of approximately 900 LF of 8-inch and 18-inch gravity sanitary sewer and approximately 700 LF of 8-inch and 12-inch sanitary force main. The project required extensive stormwater controls and bypass operations in a congested neighborhood corridor and coordination with a stormwater improvement project within the project limits.

The final design includes demolition of the existing pump station, a new shaft driven type pump station, force main, gravity sewer, pumping equipment, electrical and controls, interior piping, masonry building, site work, erosion and sediment control, traffic control, ditch relocation, and a new basketball court for the neighbors!

Gannett Fleming also provided staff augmentation under this contract. We provided an on-site full-time project manager to assist the Department of Public Utilities working under the direction of the City for a period of 18 months. This arrangement was extended multiple times after the contract expired through a series of sole source purchase orders.

ON-CALL PUMP STATION ENGINEERING SERVICES, BALTIMORE COUNTY, MD

BALTIMORE COUNTY DPW

Type of Infrastructure

Pump Station
Stormwater Pipeline
Water Pipeline
Sewer

Services Provided

- ✓ Evaluations
- ✓ Design
- ✓ Value Engineering
- ✓ Constructibility
- ✓ QA/QC
- ✓ Modeling

Key Personnel Involved

Carolina Cubides
Yurfa Glenny
Elik Livay
Sophia Liskovich

Baltimore County DPW owns several aging pump stations that required evaluation to ensure proper system conditions were being maintained. The County retained Gannett Fleming to assist in the implementation of improvements to W/WW pumping stations within the County system. We are documenting existing conditions at the stations and recommending improvements in detailed final reports. As part of this on-call contract, we have completed the following assignments:

Catonsville Pump Station. Catonsville was constructed in 1959 and has a maximum capacity of 18 mgd. Principal station facilities include two 10 mgd pumps, two 5 mgd pumps, a 20 Mgal ground storage reservoir, a gas chlorination system providing dis-infection of the station discharge and the influent and effluent flows of the reservoir, a discharge flow meter, reservoir flow control valves, electrical and instrumentation systems, an electrical substation, and an operations building. As part of the pump station evaluation and assessment of the conditions of the station's facilities, we performed a hydraulic analysis of the system and evaluated the potential replacement or addition of a new transmission main and new supply main. Subsequently, we provided a recommendation to construct a new 36-inch supply main and a new 30-inch transmission main. The 36-inch supply main provides a redundant connection for the pump station and 20 mgal ground Catonsville Reservoir.

Gannett Fleming also designed 3,600 LF of new 36-inch water line, including a sleeve installed by jack-and-bore under U.S. Route 40, connection to the 48-inch transmission main in the U.S. Route 40 median by means of a tapping sleeve and valve within a concrete vault. We developed a maintenance of traffic plan for both lanes of U.S. Route 40. On completion of the study, we selected an alignment within the existing public street right of way and Catonsville County Pumping Station property and connection point and moved forward with design. Since the 48-inch transmission main is a critical component of the County system, Gannett Fleming developed and evaluated various options for completing the connection with minimal disruption to the main's operation. Some of the options evaluated include live tapping of the main, isolation of a limited section of main by using existing valves, and performance a complete shutdown of the main.

Due to the magnitude of the Catonsville PS improvements and the associated water main, we recommended the County split the project into two separate construction contracts, which allowed for contractors to bid on the specific contracts. This improved quality, reduced contract costs, and assisted the County with funding.

Figure C.4-6. Catonsville Pump Station Upgrades. On Gannett Fleming's recommendation, the County split the project into two separate construction contracts, which improved quality, reduced contract costs, and assisted the County with funding.

Sunnybrook Pump Station. Constructed in 1965, Sunnybrook receives ground water from three nearby well sources and distributes the water to approximately 109 residences in the Sunnybrook Subdivision. Design improvements included replacement of mechanical and electrical equipment, two booster pumps, piping, valves, motor control centers, instrumentation, plumbing, heating, ventilation, civil/site, structural, and environmental services. Improvements also include replacing and repairing architectural features, rehabilitation of the existing 75,000-gallon standpipe storage tank and the 6,000-gallon pneumatic tank, and installation of a new iron and manganese treatment system and a new emergency diesel-driven generator.

During construction of the Sunnybrook PS improvements, Gannett Fleming worked with the contractor to construct a new water storage tank in lieu of rehabilitating the existing tank. By replacing the old tank, we mitigated the risk of potential failure of the tank, and the potential for negative impacts on the environment, which included severe flooding.

West Inverness Pump Station. The 700 gpm station was built in 1955 and is a dry-pit/wet-pit configuration. Work involved documenting existing mechanical, electrical, architectural, and structural conditions and preparing a final report with improvement recommendations. The design included environmental services, replacing mechanical and electrical equipment; two new dry-pit pumps; new grinder; piping; motor control centers; Instrumentation & Control (I&C) systems; lighting; standby power via a permanent diesel generator; HVAC system; and civil/site and structural improvements. To allow continuous PS operations, we designed a temporary bypass pumping system including maintenance of traffic plan. The West Inverness PS was performed as part of a Consent Decree program with strict deadlines. We worked closely with the stakeholders to make sure design, permitting, and construction activities were completed on-time.

Willow Avenue Pump Station. We evaluated existing conditions of the pump station that was built in 1993 and proposed improvement recommendations. Gannett Fleming designed the 770 gpm pump station which is a dry-pit/wet-pit configuration. Based on our engineering evaluation and condition assessment, we determined the PS operates satisfactorily with minimal operational and maintenance issues. An immediate upgrade was not needed, so we recommended to perform another evaluation in a few years. The County accepted our recommendations.

The West Inverness PS's total construction cost was $2,415,000 and was completed with less than 1.5% of change orders due to our detailed design and on-going QA/QC reviews and constructability reviews.

WATER MAIN REPLACEMENT PROGRAM, ALLENTOWN, PA

LEHIGH COUNTY AUTHORITY (LCA)

Type of Infrastructure

Water Pipeline

Services Provided

- ✓ Planning
- ✓ Evaluations
- ✓ Design
- ✓ Value Engineering
- ✓ QA/QC
- ✓ Utility Coordination
- ✓ Permitting
- ✓ Modeling
- ✓ Estimating
- ✓ Risk Mitigation

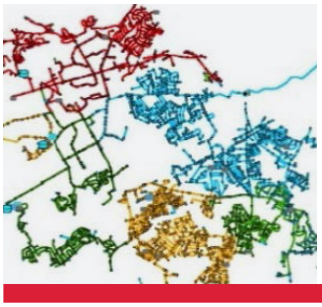
Key Personnel Involved

Benjamin Israel-Devadason
Michael Brown
David Gilbert
Rachel Govelovich

LCA is taking a proactive approach to its water main replacement strategy in its Allentown Division System. LCA serves more than 55,000 customers in Northampton and Lehigh counties in Pennsylvania. In 2013, LCA assumed control of the City of Allentown, PA W/WW systems (Allentown Division System) through a 50-year Concession and Lease Agreement. The agreement includes a series of operating and management standards that Gannett Fleming assisted in developing based on industry best practices that are designed to ensure adequate service is maintained to City residents throughout the term of the agreement.

The Allentown Division System includes more than 300 miles of water main, of which more than a third is older unlined cast iron pipe. Instead of waiting until age or deterioration causes failure of these mains, LCA engaged Gannett Fleming to manage their pipeline replacement program. This involved replacement of a minimum of 1 mile of water main in Year 1 and 2 miles yearly thereafter. Using existing GIS data, Gannett Fleming established a practical and effective pipeline asset management program. The program uses data such as main break history, age, material type, and the impact of failure on critical customers such as hospitals, to prioritize the water main replacements. In addition to the development and administration of the pipeline asset management program, Gannett Fleming prepared plans and specifications for segments of main to be replaced; coordinated with City departments, outside agencies, and utilities; provided permitting support services (regulatory and municipal); and bidding and construction management services.

Throughout the contract, Gannett Fleming has analyzed the water system and identified an order of replacements. The firm fully designs the water main replacements, acquires permits, and advertises the project for bidding for a select number of projects each year. Leasing agreements place rigid time constraints on each water main replacement project timeline. Gannett Fleming acts as Program Manager to make sure the pipes are in the ground within the given timeframe. Throughout construction, an inspector is in the field to review contractor submittals and oversee construction.



LEAD AND COPPER RULE REVISIONS AND LEAD SERVICE LINE INVENTORY, ALLENTOWN, PA

LCA

Type of Infrastructure

Water Pipeline

Services Provided

- ✓ Planning
- ✓ Studies
- ✓ Design
- ✓ Value Engineering
- ✓ Modeling
- ✓ Risk Mitigation
- ✓ LSLR

Key Personnel Involved

David Gilbert

According to the EPA, it is estimated there are between 6 and 10 million lead water service lines in the country. LCA, like all water delivery systems in Pennsylvania and throughout the country, are required to inventory their service lines and comply with LCRR requirements for replacements, sampling, and prioritizing historically-underserved communities. Gannett Fleming and its technology division, GeoDecisions, have provided engineering and GIS assistance to LCA for Main Line replacement ranking, modeling, and data conversion to Esri's Utility Network platform. Extending our services through support of LCRR lead replacement evaluation and Lead Inventory and reporting has further enhanced our ongoing services.

Lead and Copper Rule Revisions (LCRR). The Gannett Fleming/ GeoDecisions team used existing GIS data from the Pennsylvania Department of Environmental Protection (PADEP), Lehigh County, the City of Allentown and LCA to evaluate the spatial relationship of Environmental Justice (EJ) areas, known lead service lines, and potential lead lines (based on pipe age, material and survey results). The overlay provided quantified focus areas where underserved areas could be further evaluated for potential capital improvements. A financial analysis was also conducted to determine the viability of projects with respect to prioritization. A correlation of services line replacement was also noted based on the ranking of main line replacement areas. Results will be used for future funding requests and replacement scheduling as lead inventory continues over the next two years.

Inventory Inspection and Notification. GeoDecisions is assisting more than a dozen water operations in several states with deployment of the LSLI ArcGIS solution. GeoDecisions is assisting LCA GIS staff with the pre-inspection evaluations, oversight, and operational dashboards as well as the initial design for HUB site solutions for public notification. The LSLI solution provides the templates for mapping the utility line/ service line status, material, source of information and replacement needs. The solution is customized to the water operation specific approach in terms of available screening source data and inspection needs.

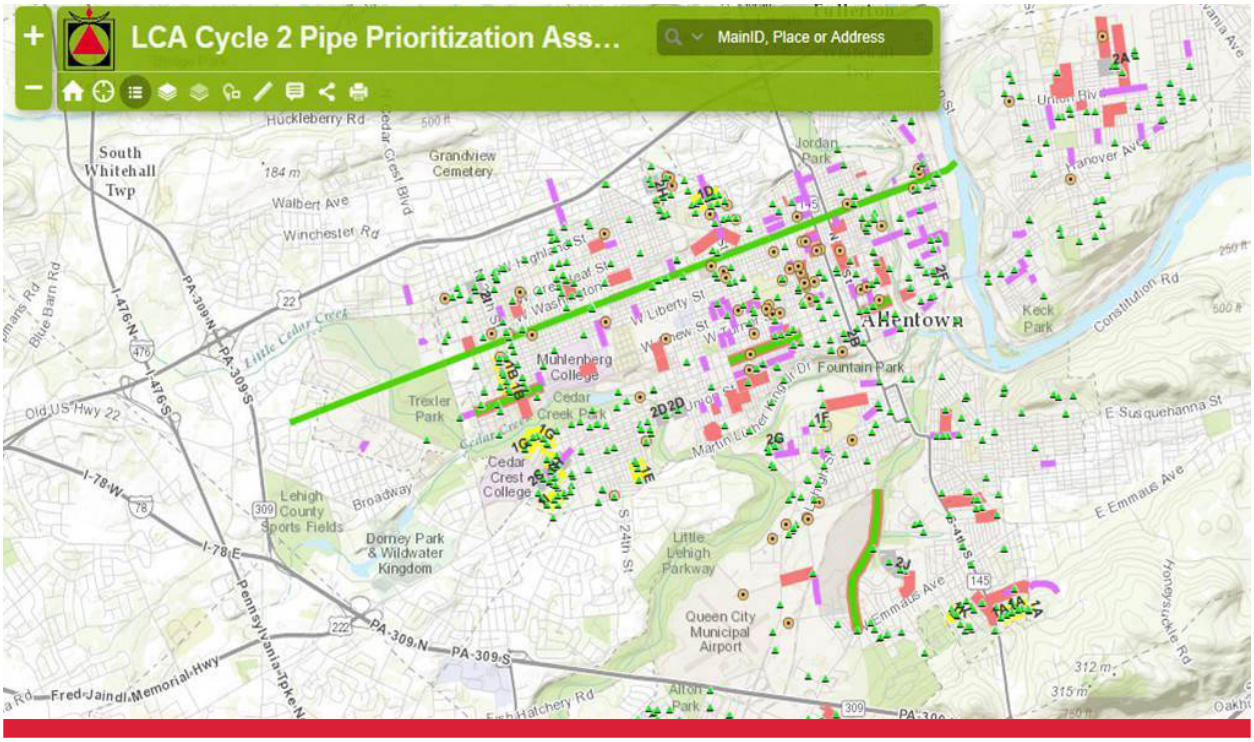


Figure C.4-7. GIS Mapping for LCA. Gannett Fleming and its technology division, GeoDecisions, have provided engineering and GIS assistance to LCA for Main Line replacement ranking, modeling, and data conversion to Esri's Utility Network platform.

In the case of LCA, local ordinances were used to determine the location of houses built after 1958 (where Lead was no longer permitted) as well as work order history and survey data (using Survey123) of customers and LCA staff. Work orders were extracted from LCA's Cityworks EAM and updated in locations for utility side criteria. Other water operations that have work orders existing in hard copy form have used GeoDecisions Machine Learning services to extract data used in populating the lead service inspection attributes. Results of this pre-screening effort show the remaining locations that will require additional efforts for inspection such as possible take-home test kits or staff inspections. This information, including the location of Galvanized pipes slated for replacement, is used to update operational dashboards and a simplified public notification site.

LCA uses GeoDecisions Notify (GIS based notification system) for all public notification and intends to inform the public of Lead status, information and replacement operations using Notify and the publicly available HUB site all lead related questions and concerns. GeoDecisions is assisting each water operation with their specific program for implementation and customizing the solutions to provide the business intelligence, operational needs and regulatory reporting criteria needed for lead line replacement.

ENGINEERING, DESIGN, AND CONSTRUCTION SERVICES FOR WASTEWATER TREATMENT AND COLLECTION SYSTEMS DELAWARE COUNTY, PA

DELAWARE COUNTY REGIONAL WATER QUALITY CONTROL AUTHORITY (DELCORA)

Type of Infrastructure

Sewer Force Main
Pump Station
Wastewater Treatment

Services Provided

- ✓ Evaluations
- ✓ Design
- ✓ Value Engineering
- ✓ Constructibility
- ✓ QA/QC
- ✓ Permitting
- ✓ Modeling
- ✓ Estimating
- ✓ Scheduling

Key Personnel Involved

Elik Livay
Brian Seip
Dennis Funk

For more than 16 years, DELCORA has partnered with Gannett Fleming on more than two dozen projects. In 2004, we provided an interim operations manager at DELCORA's wastewater treatment facility and since then have worked on a variety of wastewater projects, from feasibility studies and rate consulting services, to major treatment plant upgrades, pumping station replacements, and interceptor/force main improvements. Projects have included:

PS-6 Pumping Station Replacement. DELCORA is faced with an EPA Mandated Consent Decree to increase their influent pumping capacity to reduce combined sewer overflow occurrences in their collection system. Their WWTP also accepts up to 5 mgd of high strength hauled-in-waste each day. The strength of the waste stresses the aeration capacity of the WWTP. In addition to the existing gravity interceptor flows, the proposed PS-6 will also need to be expanded to accept the additional combined sewer overflow flow from the West End and Delaware Interceptors, flow from the Hauled-in-Waste (HIW) Acceptance Facility, and flow from the elimination of the existing Plant Recycle Flow Pumping Station (PRFPS). Using BIM/Revit software Gannett Fleming designed a combination 28 mgd self-cleaning submersible pumping station and a 5 mgd hauled-in-waste pumping station to increase pumping capacity and meet regulatory requirements. We designed the self-cleaning trench-type wet well to meet the Hydraulic Institute standard on pump intake design.

The self-cleaning submersible wet well design is not a common arrangement for submersible wet wells. Careful attention was paid to the geometry of the wet well especially during the self-cleaning cycle to mitigate cavitation that may be experienced by the pumps. The velocity through the screens must also be managed to maintain less than 4 feet per second, to avoid pulling solids through the screen during the self-clean mode. Our team performed physical modeling work, which implemented a combination of physical and operational recommendations to balance screen velocity and trench hydraulics during self-clean mode using the pump controls.

The PS-6 Pump Station has won several awards including Engineering News Record Mid-Atlantic's Award of Merit for the Mid-Atlantic Region in 2019, the American Council of Engineering Companies of Pennsylvania (ACEC/PA) Grand Conceptor Award, and the ACEC/PA's National Recognition Award, both in 2020.

Figure C.4-8. Chester-Ridley Creek Sewer Reroute. The force main alignment presented challenges, including crossings under I-95, railway crossings, and numerous utility conflicts.

The immediate area of the proposed PS-6 pumping station is very congested with active utilities. The area is bound by an active 30-inch force main to the north, a 54-inch force main to the east, the HIW acceptance facility to the south, and an electrical ductbank to the west that housed two 15 kV feeders for the WWTP, medium voltage service for the existing EPS-1 pumping station and the fiber optic lines for the entire SCADA system. We developed a detailed construction sequencing plan to allow existing services to be maintained during construction with minimal shutdown.

Gannett Fleming engaged a subconsultant to perform an odor control study for the newly constructed PS-6 and provide recommendations for improvements. Following this study, we evaluated multiple options for odor control at the pump station, including ionization, high-velocity dispersion, biological applications, and chemical scrubbers. Ultimately, we developed a customized, cost-effective approach for odor control using ionization on the supply side coupled with high velocity dispersion on the exhaust side of the ventilation system. This innovative solution succeeded in reducing critical odor levels at the pump station, and imparted valuable lessons-learned regarding how to best monitor air movement and integrate odor control systems with HVAC systems.

Chester-Ridley Creek Pumping Station and Force Main: DELCORA's Act 537 Plan recommended the Southwest Delaware County Municipal Authority (SWDCMA) WWTP needed a significant upgrade to aging infrastructure to meet new treatment requirements. The Plan concluded that constructing a new pumping station and 14,800-foot-long force main at the plant to convey up to 16.65 mgd of wastewater would be the most cost-effective option rather than upgrading the SWDCMA WWTP. Gannett Fleming provided the preliminary and final design and permitting for the new Chester-Ridley Creek Pumping Station and force main. The force main alignment presented several challenges, including crossings under I-95, railway crossings, and numerous utility conflicts.

As preliminary design of the pumping station was critical to establish the line size and material, our pumping station design comprised four 250-horsepower submersible pumps, two screens, a Vortex grit removal system, and associated grit pumps and solids conveyance equipment to ensure wastewater conveyance of 16.65 mgd. Approximately 10,000 feet of the 14,800 foot force main was constructed of 30-inch DIP through the City of Chester, with the remaining 4,800 feet of 32-inch HDPE routed through mostly wooded areas of Aston Township. This offered the best solution as far as constructibility in the respective areas. Construction services included shop drawing reviews, request for information (RFI) responses, and field engineering.

Western Regional Treatment Plant (WRTP) Improvements. To maintain a functioning treatment plant, DELCORA needed to replace various equipment that was at the end of its useful life at the their 50 mgd WRTP. DELCORA also needed to expand the plant and pumping stations to provide additional capacity for the area. Gannett Fleming has been providing engineering services at the WRTP owned and operated by DELCORA. Several WRTP improvements are detailed below.

Denitrification Capacity Analysis. The WRTP is a conventional activated sludge facility with primary clarification. DELCORA was interested in reducing power costs associated with the oxygenation process and assessing the ability to meet future discharge limits for nitrogen. DELCORA was interested only in options that would use the existing bioreactor basins while optimizing the denitrification performance of the facility. Gannett

Figure C.4-9. Long-Standing Client Relationship. Gannett Fleming has worked successfully with DELCORA for 16 years, working on more than two dozen projects.

Fleming proposed a step-wise solution to first investigate the potential denitrification capacity of the WRTP by reconfiguring a portion of the existing activated sludge process into a Modified Ludzack-Ettinger (MLE) process. If sufficient denitrification capacity appeared viable, Gannett Fleming would proceed with a preliminary design. Three years of historical operating data were statistically conditioned and reviewed. A mass balance and unit process calculations were prepared. A matrix was developed of varied operating conditions to simulate seasonal and historical operating changes encountered by the plant and determine the sensitivity to aeration volume. As an initial abstraction, specific denitrification and oxygen uptake rates were assumed to complete the unit process calculations. Ultimately, we determined that the WRTP did not have sufficient denitrification capacity. We determined that the existing final clarifiers are performing well; however, any significant additional solids loading to the final clarifiers would have negative effects. With the matrix developed, some denitrification capacity could be achieved during the summer months; but it would not have been sustainable in the winter months.

Bioreactor Capacity and Improvements Study. DELCORA's WRTP has a targeted hydraulic loading capacity of 50 mgd. While the plant's ability to accommodate the 50 mgd hydraulic loading is sufficient, current operational difficulties related to apparent bioreactor oxygenation capacity limitations have resulted in concern that the biological treatment phase may not be able to handle the oxygen demand generated at the targeted 50 mgd flow. DELCORA contracted with Gannett Fleming to perform a study to determine the overall treatment capacity of the existing bioreactors and to identify improvements necessary for the WRTP to handle oxygen demand loadings associated with the targeted 50 mgd hydraulic loading, which we completed in 2017.

Aeration Panel Replacement and Aeration System 4th Blower Installation. For DECLORA to optimize their aeration performance at the WRTP, Gannett Fleming designed replacement of the existing diffused aeration panels, and installation of a new Turblex blower at the 50 mgd plant. The existing Parkson HiOx diffused aeration panels have been failing and need to be replaced in all four aeration basins. We performed evaluation, recommended basis of design for equipment, performed design of the diffused aeration replacement and installation of the fourth blower, and provided bid documents for construction. The design included evaluation of how to optimize the diffused aeration panels installation to minimize headloss air pressure, so the current aeration blower system will be able to provide the required pressure. Additionally, the design included evaluation for potential replacement or addition of air piping, including air distribution piping and drop legs to accommodate the new aeration panels, and provide additional flexibility. Finally, our design included evaluation of the existing concrete pedestals for potential removal, or coordination of the new diffused aeration panels layout to eliminate conflict with the existing pedestals. We completed the design efficiently and ahead of schedule.

EVALUATION OF EXISTING STORMWATER PUMP STATIONS, NASSAU COUNTY, NY

NASSAU COUNTY DEPARTMENT OF PUBLIC WORKS (NCDPW)

Type of Infrastructure

Stormwater Pipeline
Sewer
Pump Station

Services Provided

- ✓ Evaluations
- ✓ Design
- ✓ Value Engineering
- ✓ QA/QC
- ✓ Estimating
- ✓ Scheduling
- ✓ Risk Mitigation
- ✓ Resiliency

Key Personnel Involved

Yurfa Glenny
Anthony Costello

Gannett Fleming evaluated six stormwater pumping stations and provided telemetry at one additional pump station at various locations throughout Nassau County. Our firm evaluated the mechanical, electrical, instrumentation, structural, and architectural components of the pumping stations, drafting technical design reports, and provided permitting and construction phase services, including performing shop drawing review, review of RFI's, and conducting site visits. Our firm also coordinated with NCDPW to integrate pumping station telemetry into their existing radio frequency SCADA system.

Nassau Boulevard

Gannett Fleming evaluated the roadway drainage and flooding experienced at the railroad crossing on Nassau Boulevard in Garden City. This was a priority location, as Nassau Boulevard is a main thoroughfare. The local road was sensitive to flooding if the existing collection system and pump station became inoperative during heavy rain events. The sewer and pump station at this location had experienced flooding during severe high-intensity rainfall events where the existing system could not handle the volume of stormwater.

Gannett Fleming conducted an investigation to determine the location of catch basins and storm sewers, and evaluated the condition of the existing pumping station. A stormwater analysis was completed to determine the volume of runoff from the 10-, 25-, 50- and 100-year storm events. Gannett Fleming's evaluation recommended that the catch basins and sewer be cleaned, and the pump station be upgraded with new pumps and controls.

Our firm prepared design drawings and specifications to replace all mechanical and electrical components of the pump station. The existing above grade housing was demolished and replaced with a concrete slab with an access hatch. A valve chamber was added to provide easier access to the valves.

All electrical equipment and control panels were constructed within a fence enclosure with screening to improve site aesthetics. A telemetry system was added to remotely monitor the pump station and provide notification when an alarm condition occurred. Provisions were included for a temporary generator to be connected to the system during power outages.

Cedar Point Lake
The Cedar Point Lake Pump Station was severely flooded and damaged during Superstorm Sandy. In addition, the elevation of the mechanical and electrical equipment made it vulnerable to future storms. To rectify these issues, NCDPW selected Gannett Fleming to design a new pump station and electrical control building and rehabilitate the tide gate system. Our design included the following:

- A new cast-in-place concrete pump station with four submersible axial flow pumps. The pumping capacity will be approximately 32 mgd, similar to the preexisting pumping capacity.
- The wet well will be constructed deeper than the existing pump station to allow the lake to be pumped down lower. This will provide more storage capacity in the lake to help prevent flooding of the surrounding neighborhood during storms. The current storage capacity is approximately 60 million gallons and will be increased to approximately 120 million gallons.
- The pump station will consist of the wet well, forebay and inlet area. The pump station superstructure will extend approximately eight feet above grade (approximately three feet above the 100-year flood elevation). The top of the superstructure will have access hatches above each pump for installation and removal.
- New electrical power supply and an elevated pre-fabricated electrical building along Branch Boulevard that is located on a platform above the 100-year flood plain.
- New electrical equipment to connect a portable standby generator with a connection box located above the 100-year flood plain.
- Sheet piling cofferdam and dewatering during the intake structure construction.
- Concrete piers and platform to support the new pre-fabricated electrical building.
- SCADA design includes coordinating interconnections between field instruments to a new termination box to accommodate a future SCADA system.

Figure C.4-10: Pump Station Improvements. As part of the design, Gannett Fleming made sure all electrical equipment was elevated above the 100-year flood plain.

Our firm provided bid assistance and design services during construction. These services included the following:

- Attend the pre-construction and monthly construction progress meetings;
- Review and approve detailed construction, shop, and erection drawings;
- Make periodic site visits, as necessary, to observe construction progress and advise NCDPW of any potential problems with the work;
- Review change orders and prepare supplementary drawings and cost estimates;
- Provide consultation on special construction problems, as necessary;
- Assist in verification of record drawings;
- Develop a Facility Operation and Maintenance Manual; and
- Provide facility start-up, staffing, and training services.

SOUTH SHORE WATER RECLAMATION FACILITY IMPROVEMENTS, NASSAU COUNTY, NY

NCDPW

Type of Infrastructure

Reclaimed Water
Treatment
Stormwater
Pump Station

Services Provided

- ✓ Design
- ✓ Constructibility
- ✓ QA/QC
- ✓ Modeling
- ✓ Estimating
- ✓ Scheduling
- ✓ Construction Management
- ✓ Risk Mitigation
- ✓ Resiliency

Key Personnel Involved

Lars Augustin

NCDPW has undertaken a full repair and upgrade to the 70 mgd South Shore Water Reclamation Facility (WRF) [formerly known as Bay Park STP] as a result of Superstorm Sandy. As part of this $800M overall upgrade program, Gannett Fleming has provided engineering services for numerous improvements to the WRF.

Stormwater Pumping Stations. Gannett Fleming provided construction management services for the construction of two stormwater pumping stations at the WRF. This included an 8.4 mgd PS at the north catchment area and a 38 mgd PS at the south catchment area, as well as the installation of new pumping equipment and electrical/controls systems. This project served as an enhancement within the perimeter flood wall/earthen berm to mitigate the potential for future tidal backups throughout the stormwater system and also has the ability to collect and transport stormwater from the plant property.

Grit Removal Facility. NCDPW needed to overhaul its detritus tank grit removal system. The system treats an average flow of 70 mgd and has a capacity of 150 mgd. Gannett Fleming provided design and design services during construction for rehabilitation of the grit-removal facility. We evaluated and proposed construction of new vortex grit chambers within the existing tanks. This proven technology offers consistent removal efficiency over a wide flow range. Our HVAC design included a new odor control system to ventilate the building per current codes and standards.

The Grit Removal Facility project was awarded the 2018 Diamond Award, presented by the American Council of Engineering Companies of New York.

Sludge Dewatering Facility. During Superstorm Sandy, water flooded the first floor, causing equipment damage and a shutdown of operations. Temporary dewatering systems were installed as a result of the storm. The dewatering system is one of the most critical processes at the facility, and design upgrades consisting of four new centrifuges and associated equipment were **completed within 200 days.**

Secondary Flood Protection and Hardening of Critical Facilities. Gannett Fleming provided construction management services for the construction of flood protection for critical facilities in the WRF. Flood protection was added to selected buildings to increase their reliability and mitigate against future storm and flood vulnerability. The project included structural reinforcement of buildings incorporating fiber reinforced polymer (FRP) reinforcing, the installation of flood walls, flood gates, flood vents, removable flood barriers, flood-proof doors and the installation of new submersible sump pump systems in the below grade tunnel system.

TAB D. ORGANIZATIONAL PROFILE AND PROJECT TEAM QUALIFICATIONS

GANNETT FLEMING

TAB D. ORGANIZATIONAL PROFILE AND PROJECT TEAM QUALIFICATIONS

Led by Keisha Westbrook, our integrated team of qualified, experienced professionals will efficiently deliver the various water, sewer, reuse, and stormwater infrastructure projects under this contract.

D.1 INTRODUCTION TO PROJECT TEAM

The Gannett Fleming team has significant similar project experience, a local presence, and local permitting and regulatory requirements knowledge, and will perform technically sound services for the City of Hollywood.

As shown in our team's resumes and work experience, our personnel have performed similar design, permitting, and construction management services for municipal clients in urban areas. We will provide technically sound, compliant designs to replace aging linear infrastructure and pump stations - on time, within budget, and in compliance with regulatory requirements.

To fulfill our commitment to the City, we selected three teaming partners with specialized, local experience to complete our Hollywood Beach Utility Improvements team:

- **Metco Southeast, LLC (CBE)** will provide MEP and I&C support.
- **F. R. Aleman and Associates, Inc.** (M/WBE) will provide surveying/SUE support.
- **AREHNA Engineering, Inc.** (MBE) will provide geotechnical support.

D.2 ORGANIZATIONAL CHART

As illustrated in the organizational chart in **Figure D.2-1** on the next page, our team of expert professionals is organized according to the RFQ requirements and responds directly to the City's infrastructure project scope. These individuals will apply their in-depth experience to successfully deliver any project that may stem from this contract. Our leadership team, which includes our Project Manager and principal project team members, offers expertise across water, sewer, reuse, and stormwater infrastructure. They bring a wealth of knowledge and experience with similar utility clients, and an overall high level of commitment to each municipal infrastructure project we undertake.

Project Manager Keisha Westbrook, PE will serve as the single point of contact with the City throughout the contract. As a local resident of Broward County based in our local Miami office, she has 27 years experience managing complex utility improvement projects for clients such as the City of Naples, Lee County, Collier County, and for the west service center of SFWMD. She has led projects evaluating water distribution and wastewater collection systems. One of Keisha's primary responsibilities will be to keep infrastructure projects on schedule and on-track, monitoring progress and updating the City through regular communication.

Supporting Keisha in managing the day-to-day project activities will be **Project Engineers Abnery Picón, PE, PMP, ENV SP** and **Lilian Marrero, PE, ENV SP**. With 30+ years of experience in conducting water and wastewater projects from planning through design and construction combined, Abnery and Lilian will work with Keisha and other key personnel to make sure project activities are coordinated and completed to the City's satisfaction. Using expertise in design management and project performance monitoring, they will aid in coordinating the design teams' efforts across the project's lifespan.

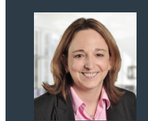
As **Project Principal, Naldo Gonzalez, PE, ENV SP** will provide project oversight and resource allocation as necessary to help meet the City of Hollywood's schedule, budget, and goals.

In addition to project management, we have assigned **key personnel** who are experts in their fields and will drive quality, innovation, best practices, thought leadership, and resource management throughout this contract. This allows the City direct contact and support by our top leadership and subject matter experts in pipeline infrastructure, ensuring successful, proven execution of the work.

Figure D.2-1: Organizational Chart ***(right)*** outlines our project team members' roles and reporting structure. Our team meets the minimum requirements outlined in the RFQ and consists of the necessary expertise and disciplines to successfully deliver technically-sound, cost-effective, and innovative water, wastewater, reuse, and stormwater infrastructure projects under this contract. Additionally, this team can also cover QA/QC and value engineering needs. Should the City assign water and wastewater treatment tasks under this contract, we have included qualified professionals to lead those respective tasks.

Figure D.2-2 on the next page outlines the roles and responsibilities of personnel.

Resumes for Project Management; Water, Sewer, Reuse, Stormwater Infrastructure; QA/QC and Value Engineering; Water/Wastewater Treatment; and select Supporting Disciplines will follow and will include additional information such as specialized training, professional certifications, education, and experience.



"I am committed to the City of Hollywood, its infrastructure, and the communities it serves, and stand ready to lead this team on future projects."

– Keisha Westbrook, PE, Project Manager, Gannett Fleming

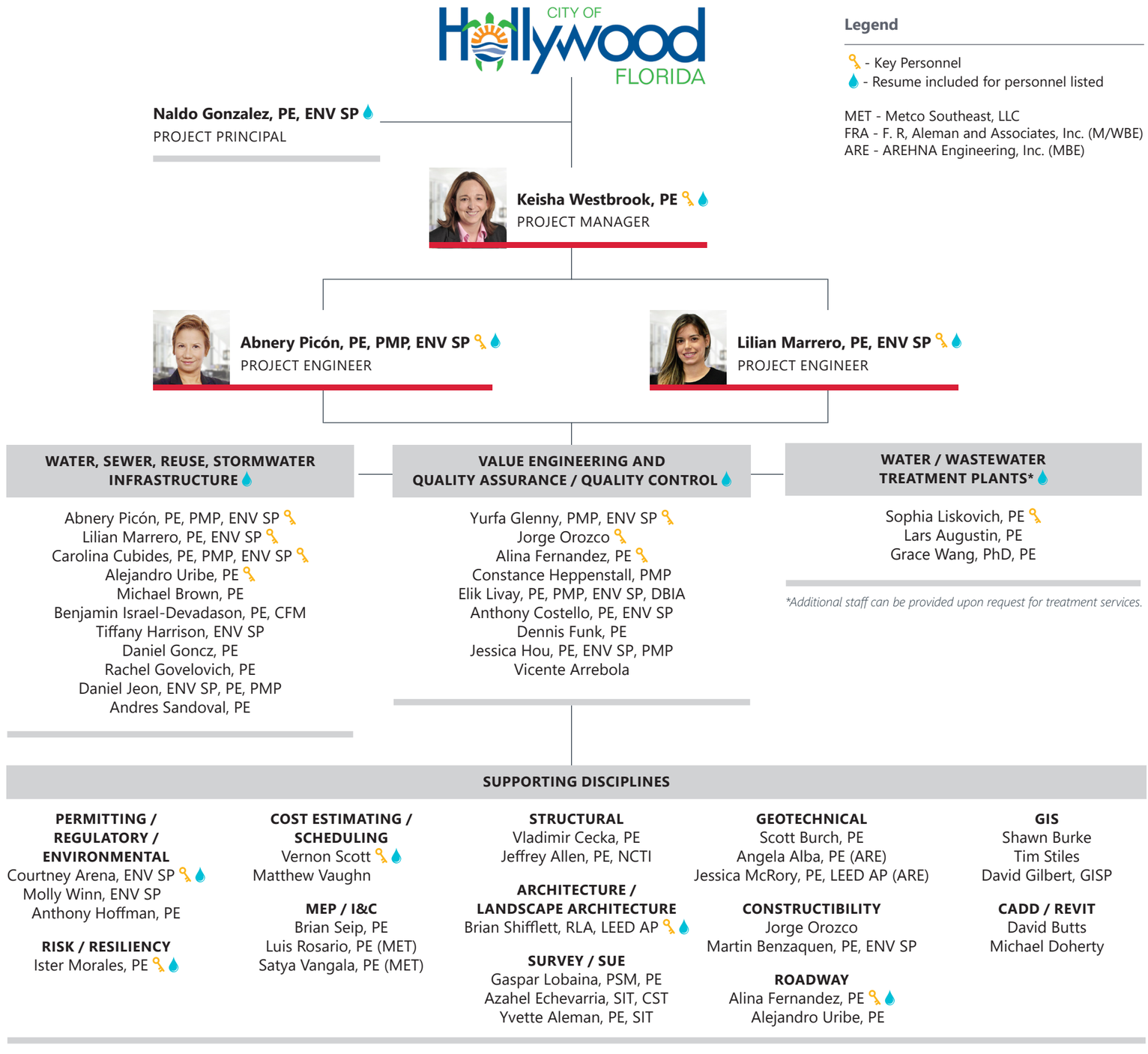


Figure D.2-2: Roles and Responsibilities briefly describes the roles and responsibilities of our project manager, project engineers, key personnel, and the rest of the project team. Each individual contributes to the team's collaborative approach throughout a project's lifespan.

PROJECT MANAGER

- Overall responsibility for project execution and meeting City of Hollywood's expectations
- Provides overall leadership and contract management
- Main point of contact with City of Hollywood
- Prepares Contract Project Execution Plan (PEP)
- Monitors project progress
- Works with Project Engineers to assign resources
- Assigns personnel for QA/QC
- Reviews and approves deliverables, including schedules and budgets
- Reviews, approves, and submits accurate progress reports and invoices
- Signature authority for contract and modifications
- Approves technical work plans for consistent process and delivery
- Issues subcontracts
- Monitors team performance, including subconsultants
- Verifies deliverables are aligned with goals and objectives

PROJECT ENGINEERS

- Leverages technical talents of Project Team for the benefit of the project
- Implements Contract PEP
- Responsible for development and execution of specific task order PEPs
- Selects and directs technical staff and subconsultants
- Completes deliverables and prepares progress reports
- Assists Project Manager with project monitoring and controls
- Interpret SOW and seek technical direction from the Project Manager
- Monitor team performance
- Initiate expenditures and schedule changes
- Approve methods and techniques
- Accept and review subconsultant deliverables

KEY PERSONNEL

- Supports leadership with discipline-specific guidance and services, as requested
- Guides quality, innovation, best practices, thought leadership, and resource management
- Execute services for Task Orders
- Perform engineering calculations and develop reports, studies, drawings, and technical specifications
- Secure permits and meet regulatory compliance
- Provide cost estimating, scheduling, and other support services

SUPPORT STAFF

- Supports leadership and key personnel through th execution of Task Orders
- Perform engineering calculations and develop reports, studies, drawings, and technical specifications
- Secure permits and meet regulatory compliance
- Provide cost estimating, scheduling, and other support services

D.3 PROJECT PERFORMANCE

D.3.1 Ability to Meet Schedules

Executing complete, quality designs and installations on-time or ahead of schedule is an important aspect for general engineering programs. When developing a schedule for tasks under this contract, our team will be highly aware of the sensitivity of the construction on some sites that might be congested and/or highly visible to the public and will work to minimize any disruptions or impacts. We will prepare and submit to the City of Hollywood a detailed project schedule, identifying major milestones and target submission dates. We will pay particular attention to capturing all critical path elements, including coordination and review with the City of Hollywood, other various agencies, ongoing activities, and permitting requirements. Work-in-progress meetings include the review of project status against the approved schedule, adjusting staffing as necessary to meet milestone target dates, and allow the team to develop innovative ideas to reduce expenditures and construction costs. Our team takes proactive action early in the design phases to maintain the schedule.

D.3.2 Ability to Stay Within Budget

Meeting budget requirements is at the forefront of all our projects and is very important to the success of the City's projects. Our services will be technically sound and performed within strict cost-control objectives for design and construction. For controlling professional hours expended, Gannett Fleming's management information system, BST Enterprise, is a critical tool in the planning, budgeting, and tracking of an assignment. The system provides real-time access to all project accounting information. The system allows Project Manager Keisha Westbrook to set up the contract by discipline and scope phase and track hours worked daily. Our multi-discipline coordination reviews as well as constructibility reviews performed by our construction management team during design help controlling costs during construction and minimize change orders. The following project demonstrates Gannett Fleming's ability to meet or exceed schedule expectations and stay within budget, providing contract documents that are "biddable and constructible."

Delaware County Regional Water Quality Control Authority (DELCORA), Pump Station and Treatment Plant Design and Construction Services, PS-6 Pumping Station Task

Based on the PADEP Consent Order Decree, the pump station needed to be operational by December 2018. Gannett Fleming successfully managed an accelerated project schedule and delivered the project four months ahead of schedule and within budget.

- **Design Schedule:**
  Contract: 332 days
  Actual: 341 days
- **Bidding and Award Schedule:**
  Contract: 63 days
  Actual: 54 days
- **Construction Schedule:**
  Contract: 609 days
  Actual: 491 days
- **How These Time Frames Were Met:**
  - SCADA summits during the design and meetings with DELCORA staff
  - Due to additional scope items, additional interim deliverables were presented to the client to keep track of design development
  - Contractor SCADA summit within 30 days of NTP where the contractor, Gannett Fleming, and DELCORA met to discuss what DELCORA wanted before shop drawings were due

Original Budget:
$20,000,000

- **Estimate at Bid Time:**
  $18.431,514
- **Accepted Bid Price:**
  $13,923,660

Change Orders:
$10,747

Reason for Change:
Out of scope item

Issues Affecting Overall Project Cost:

- Compact excavation plan from the contractor which eliminated several piles

D.4 USE OF SUBCONSULTANTS

Gannett Fleming has engaged subconsultant firms with the right experience, knowledge, qualifications, and commitment to address the infrastructure needs of the City of Hollywood. All members of our team will leverage a shared vision of teamwork, innovation, and proven approaches to deliver accurate, easily accessible results across a project's life-span. We strategically built our team with three businesses, two of which are Broward County-certified minority businesses. Each offers services that enhance our capabilities to anticipate and meet the contract requirements and the City's project goals.

Gannett Fleming has significant experience in managing multiple subconsultants under task order contracts. We understand that we are ultimately accountable for the performance of our subconsultants and treat them as an extension of our staff to commit quality services to the City.

Metco Southeast, LLC (CBE)

Metco Southeast is a minority owned firm established in 2008 to provide multi-disciplined consulting engineering services to meet the needs of the communities located in the State of Florida in the areas of water and wastewater systems. Since its inception, Metco Southeast has established a well-earned reputation for the delivery of complex design engineering solutions in addressing the needs of the most challenging engineering projects. They are also a Certified Small and Disadvantaged Business with multiple agencies throughout the region including Broward County. They have included two Florida-licensed professional engineers on this contract to support Gannett Fleming with **MEP and I&C**: Luis Rosario and Satya Vangala.

Relevant Projects

- City of Hollywood Deep Injection Wells No. 3 And No. 4 Pump Station
- Broward County W/WW Services Improvements to Fine Bubble Aeration Basin Conversion at North Regional WWTP

F. R. Aleman and Associates, Inc. (M/WBE)

F.R. Aleman is an award-winning consulting firm with expertise in engineering, geospatial/ surveying and mapping, and 3-D subsurface utility engineering. Their dedicated professionals have been providing professional services and innovative solutions through technology to public and private sector clients throughout the State of Florida, the United States, the Caribbean, and Central and South America for the past three decades. F.R. Aleman is pre-qualified through the Department for Professional Services with FDOT and a registered M/WBE through the State of Florida. They have included senior-level **professional surveyors and mappers as well as highly experienced Certified Survey Technicians (CSTs)** on this contract.

Relevant Projects

- City of Miami Beach, Citywide Surveying, Topographical & Mapping Services
- FDOT District 4, Continuing Services for Surveying, Mapping and SUE

AREHNA Engineering, Inc. (WBE)

AREHNA Engineering, Inc. is a geotechnical engineering and materials testing firm certified in Broward County with an experienced staff of engineers who work closely with clients and project design teams to provide the most cost-effective solutions to the challenges faced on each project. They are familiar with the geologic conditions in the City of Hollywood and Broward County and have extensive experience designing stabilization programs both pre- and post construction. They have included two Florida-licensed professional engineers on this contract to support Gannett Fleming with **geotechnical investigations**: Angela Alba and Jessica McRory.

Relevant Projects

- City of Hollywood Various Engineering Services Continuing Contracts
- City of Sunrise Geotechnical and Engineering Testing Services

GANNETT FLEMING

KEISHA WESTBROOK, PE

Project Manager

Years of Experience with Gannett Fleming:

1

Years of Experience with Other Firms:

26

Percentage of Time Dedicated to Contract:

80%

Education:

BS, Civil Engineering, Michigan State University, 1996

Rosgen Levels 1-4, River Restoration and Natural Channel Design, Wildland Hydrology, Inc.

NPDES SWMP Training for Phase II MS4s

Flood Mitigation Assistance (FMA) Grant Training (FEMA)

Hazard Mitigation Grant Program (HMGP) Training Course (FEMA)

Resilient Florida Grant Program Training Course (FDEP)

Registrations:

Professional Engineer in Florida - No. 65023

A local resident to Miami and licensed engineer in the State of Florida, Keisha is committed to supporting clients like the City of Hollywood to provide safe, reliable water services to their communities. With over 25 years of experience supporting municipal clients in Florida on water and wastewater projects, Keisha is familiar with local, federal, and state guidelines and regulations. She has served as a Project Manager since 2004, developing specialized experience in W/WW distribution and collection systems, treatment facilities, and stormwater quality and drainage plans in both the private and public sector.

Relevant Projects

Hamilton Avenue and Danford Street Water Main Replacement, Naples, FL, *City of Naples.* Project Manager responsible for design, permitting, and construction services for the abandonment of approximately 2,500 LF of 12" and 6" asbestos cement pipe prior for the City of Naples prior to roadway improvements to be completed by Collier County. The project focus was installation of new water main and the connection of water services and fire suppression systems to the new polyvinyl chloride (PVC) water main. This project was split into two phases and the Hamilton portion is scheduled to go to construction in January of 2022 and the Danford portion will be completed under an interlocal agreement with the County in January of 2023.

Gulf Shore Drive South Water Main, Naples, FL, *Collier County***.** Project Manager responsible for design, permitting, and construction services for the abandonment of approximately 4,500 LF of 8" asbestos cement pipe within a section of Gulf Shore Drive and Vanderbilt Beach Rd. The project focus was installation of new water main and the connection of eleven long side and four short side fire and water services and fire suppression system connections to the new PVC water main. During the construction phase responsible for leading construction progress meetings, reviewing contractor pay applications, conducting engineering inspections, and responding to RFI's from the County and Contractor.

Canal Crossing and Pump Station Replacement, Naples, FL, *Collier County***.** Project Manager responsible for design, permitting, and construction services for repurposing an existing pump station and conveying the flows across the Lely Main Drainage Canal to an existing pump station. The project included 307 LF of 8" gravity sewer, three (3) manholes, abandonment 800 LF of 8" force main and 100 LF of 8" gravity sewer. The team generated the construction plans, opinion of probable construction cost, construction documents, and obtained permits. During the construction phase the team was responsible for reviewing contractor pay applications, conducting engineering inspections, responding to RFI's from the County and Contractor, and final permit certification.

Pine Ridge Estates Watershed Study, Naples, FL, *Collier County.* Project Manager for a large-scale Hydrology and Hydraulic analysis for Pine Ridge Estates to analyze the current conditions for flood-prone areas and propose improvements that would help to minimize flooding in the area. This study and the resulting proposed flows into the adjacent canal were then used to size a culvert under a major collector being widened and a regional control structure downstream of the connection point. The approach utilized EPA-Storm Water Management Model (SWMM) along with ArcGIS to complete a full report and base model which will be added to the County's overall model for submittal to FEMA.

Stormwater Drainage Improvement Project, Golden Gate City, FL, , *Collier County.* Project Manager. Leading the design team to perform comprehensive engineering analysis of the County-owned stormwater system within the specified quadrant boundaries of Golden Gate City to establish the basis of design for system renovations. Upon completion of the comprehensive engineering designs, in charge of performing selective equivalent capacity analyses and construction-related support services.

Saturnia Lakes Water Main Looping, Naples, FL, *Collier County.* Engineer and Project Manager responsible for the design, construction plans and permitting for a water main loop from Saturnia Lakes to Island Walk developments along Logan Boulevard to improve system performance in that area. The project included 550 LF of open cut water main and an HDPE directional drill to avoid disturbance of an existing landscape buffer and wall.

Golden Gate City WTP, Naples, FL, *Collier County.* Project Manager and Engineer responsible for permitting and construction services for decommissioning the water main connection from the Golden Gate City WTP. This project included a reverse connection and loop system to the Collier County WTP. It also required a directional drill under an active golf course.

Stormwater Needs Analysis, Naples, FL, *Wentworth Community Development District.* Project Manager. Performed a 20-year stormwater needs analysis for a community development district pursuant to Section 5 of Section 403.9302, Florida Statutes.

Stormwater Needs Analysis, Naples, FL, *Flow Way Community Development District*. Project Manager. Performed a 20-year stormwater needs analysis for a community development district pursuant to Section 5 of Section 403.9302, Florida Statutes.

Stormwater Needs Analysis, Pembroke Pines, FL, *Pembroke Harbor Community Development District*. Project Manager. Performed a 20-year stormwater needs analysis for a community development district pursuant to Section 5 of Section 403.9302, Florida Statutes.

WTP & WWTP System II/III Hurricane Hardening, Davie, Florida, *Town of Davie.* Project Manager. Assisted with a Resilient Florida Grant project to assist with protecting essential equipment and structures from sea level rise and additional stormwater requirements.

Thomasson Drive Streetscape Project, Naples, FL, *Collier County*. Project Manager. Leading a team to perform comprehensive engineering design of approximately 1.6 miles of Thomasson Drive and Hamilton Avenue from Orchard Lane to Bay Street. The design was to include shared use pathways on both sides of the street, medians and traffic separators, public art installations and improved bicycle lanes. Later in the design process it was decided that a roundabout would be incorporated at the intersection of Thomasson and Bayshore for traffic calming and beautification. The design was also completed to fall under an ERP exemption with the South Florida Water Management District which would save permitting duration and reduce the project budget by 33%. During the construction phase the team was responsible for reviewing contractor pay applications, conducting engineering inspections, responding to RFI's from the County and Contractor, and final permit certification.

GANNETT FLEMING

NALDO GONZALEZ, PE, ENV SP

Project Principal

Years of Experience with Gannett Fleming:

16

Years of Experience with Other Firms:

15

Percentage of Time Dedicated to Contract:

5%

Education:

BS, Civil Engineering, Tulane University, 1992

Registrations:

Professional Engineer in Florida - No. 51945, PR, GA

Envision Sustainability Professional (ENV SP): Institute for Sustainable Infrastructure (ISI) - No. 18993

Miami-Dade Ethics Training: Miami-Dade Commission on Ethics and Public Trust

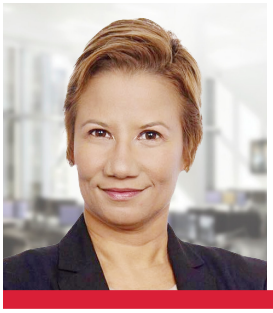
Naldo has served as a Project Principal on 70+ projects in Florida, including projects for the City of Doral, City of Miami Beach, FDOT, and Miami-Dade County. During his 30+ year career, he has led complex design and design-build projects for FDOT, such as major widening and reconstruction of highways, new turnpike service plazas, tunnel rehabilitation, and railroad capacity improvements. Naldo regularly provides client management and resource allocation to support a range of complex roadway, W/WW, civil, and environmental engineering improvements projects.

Relevant Projects

Professional GES, Doral, FL, *City of Doral.* Project Principal responsible for QA/QC, client management, resource allocation, and reviewing and approving task work orders for this general consulting services contract. This contract included water and sewer design, roadway/drainage design, structural design, traffic and transportation engineering, civil/site planning and design, environmental assessments and engineering, land use and zoning, architectural design and space planning, building remodeling and new construction design, plans review and permitting, building/threshold inspections, contract administrations, construction engineering and inspection, material inspections, project management, and landscape design.

GEC Services, *FDOT, District 6.* Principal-in-Charge under this contract in which the Gannett Fleming team functions as an extension of District 6 resources by providing highly qualified personnel and resources for various duties and responsibilities assigned through individual task work orders. The GEC contract primarily supports transportation development offices, including the Design Office, the Right-of-Way (ROW) Administration Office, and the Program Management and Planning and Environmental Management Office (PLEMO). Provides support in other areas and offices of District 6, including Modal Development and Transportation Operations (Maintenance, Construction, and Traffic Operations). Our team is providing a wide range of engineering, survey, architectural, landscaping, technical, management and administrative services.

S.R. 968/Flagler Street From West 14th Avenue to West 2nd Avenue, Miami-Dade County, FL, *FDOT, District 6.* Project Manager and Engineer of Record responsible for the technical lead and management for the design of major roadway improvements to Flagler Street. Scope of work included design for reconstruction and upgrade of the roadway, drainage system, lighting, and signalization. Utility plans included installation of 8- and 12-inch water mains along Flagler Street for upgrading service in the area. Also included in the scope were permitting, utility coordination, traffic control plans, and extensive coordination with the SFWMD, Miami-Dade County Department of Environmental Resources Management, FDOT, City of Miami, Miami-Dade County, and adjacent projects.



GANNETT FLEMING

ABNERY PICON, PE, PMP, ENV SP

Project Engineer | Water, Sewer, Reuse, Stormwater Infrastructure Lead

Years of Experience with Gannett Fleming:

4

Years of Experience with Other Firms:

18

Percentage of Time Dedicated to Contract:

60%

Education:

BS, Civil Engineering, University of Puerto Rico, 1999

MS, Civil Engineering, Environmental Engineering Program, University of Puerto Rico, 2002

Registrations:

Professional Engineer in Florida - No. 81613

Project Management Professional (PMP): Project Management Institute (PMI) - No. 2899772

ENV SP: ISI - No. 50013

Abnery has served in design, management, or condition assessment capacities on nearly 30 pump stations and has 20+ years of specialized expertise in the management, design, and procurement of WW/W infrastructure. As a Florida resident, she understands the local and state regulatory and permitting requirements. Leveraging her expertise and familiarity with the project area and regulatory agencies, Abnery will support Keisha with the delivery of an efficient project, delivered on schedule and within budget, while mitigating impact to the surrounding environment.

Relevant Projects

Sunshine No.1 Pump Station Force Main Replacement, North Miami Beach, FL, *NMB Water.* Lead Designer for replacing approximately 2,000 feet of a 6-inch ductile iron force main.

South County Reclaimed Water Master Plan, *Pinellas County, FL.* Project Engineer and Deputy Project Manager for the master plan to identify reclaimed water demands, deficits, and deficiencies in the reclaimed water distribution system in the south portion of Pinellas County. The master plan also evaluated scenarios to improve the operation of the system.

ST-1A Improvements South District WWTP, Miami, FL, *MDWASD.* Lead Designer of two 20-million-gallon equalization tanks to store peak weather flows, with an interior wall cleaning system and a 4-mgd equalization tanks drain pump station. Design was 75 percent completed before being placed on hold by the owner.

Babcock Ranch Water Reclamation Facility Expansion, Fort Myers, FL, *Kitson and Partners.* Design Manager of the 50 percent design for expanding the existing treatment facility from an annual average daily flow of 0.15 to 0.75 mgd. New headworks, clarifiers, filters, chlorine contact tank, and dewatering building were required. The design was used to determine the guaranteed maximum price for the design-build project.

WTP Lime Feed System Evaluation, Pembroke Pines, FL, *City of Pembroke Pines.* Project Engineer responsible for developing a technical memorandum summarizing the evaluation of three lime feed system technologies (paste slaker, batch slaker, and Cal-Flo) and provided recommendations and schematic design to replace the existing system.

GANNETT FLEMING

LILIAN MARRERO, PE, ENV SP

Project Engineer | Water, Sewer, Reuse, Stormwater Infrastructure Lead

Years of Experience with Gannett Fleming:

2

Years of Experience with Other Firms:

9

Percentage of Time Dedicated to Contract:

60%

Education:

BS, Civil Engineering, Florida International University, 2011

MS, Civil/Water Resources Engineering, Florida International University, 2013

Registrations:

Professional Engineer in Florida - No. PE92772

ENV SP: ISI - No. 49993

Lilian has extensive experience designing for W/WW process infrastructure and pump stations as well as hydraulic analysis, modeling and pilot testing. She regularly prepares contract drawings and technical specifications for detailed design and leads engineering services during construction across multiple projects. Her recent project experience includes providing technical support and oversight for the improvements to SFWMD's S-27 Forward Pump Station and Structure Improvement task order project.

Relevant Projects

S-27 Forward Pump Station and Gate Structure Improvements, Miami, FL, *SFWMD*. Project Technical Lead for design of a 1,500 cfs and water control structures, including a generator and control building to house emergency and ancillary electrical equipment, to improve the flood protection level of service and address sea level rise projections. Managed overall design among the multidisciplinary engineering team, evaluated various pumping technologies, and evaluated and recommended mitigation measures to harden the design against sea level rise.

Master Pump Station 2 Upgrades – Addition of Pump No. 6, Miami, FL, *MDWASD*. Project Engineer and Permit Lead. In anticipation of future growth and residential development within Downtown Miami, the existing capacity at Master Pump Station No. 2 need to be expanded by adding a sixth pump for the facility to process additional wastewater flows. Design drawings and specifications were also developed as a standalone project for WASD to install a new air conditioning system for the electrical room. Helped develop detailed design drawings and technical specifications for the addition of a sixth pump and secured the required permits with the City of Miami and the Department of Regulatory and Economic Resources.

CDWWTP – New Materials Management Building Conceptual Design, Miami, FL, *MDWASD*. Project Technical Lead. Under the OOL Program a new Electrical Distribution Building (EDB-3) is being designed and will be constructed where the existing Storeroom Building and Plant 1 Digester Gas Scrubbers Station are located. To allow for the construction of EDB-3 these existing facilities will need to be relocated. A new storeroom building will replace the existing at a new location. As Project Technical Lead, served as the main technical interface with the MDWASD and was responsible for the technical execution of the project, providing coordination between technical leads and discipline engineers while helping develop preliminary design civil and architectural drawings and a project definition technical memorandum. In addition, was the Lead Process Engineer responsible for performing an assessment of the Plant 1 Digester Gas Scrubber units' condition to determine whether the units could be reused or if they need to be demolished and replaced.

GANNETT FLEMING

CAROLINA CUBIDES, PE, PMP, ENV SP

Water, Sewer, Reuse, Stormwater Infrastructure Lead

Years of Experience with Gannett Fleming:

5

Years of Experience with Other Firms:

12

Percentage of Time Dedicated to Contract:

30%

Education:

AA, Engineering, Broward Community College, 2003

BS, Civil Engineering, University of Florida, 2005

MS, Civil Engineering, Politecnico di Milano, Italy, 2011

Registrations:

Professional Engineer in Florida - No. PE80493

PMP: PMI - 1956905

ENV SP: ISI

Carolina brings national design and permitting experience for various WW/W projects, totaling nearly 40,000 LF of 4- to 108-inch pipeline, including more than 14,000 LF of 6- to 12-inch force main and gravity sewer. Her expertise includes design management and monitoring of project performance; coordinating activities with design teams to meet schedule milestones; and leading design teams and sub-respondents through conceptual designs, field investigations, design development, and permitting and procurement activities.

Relevant Projects

Larchmont Area Sanitary Sewer Improvements, Norfolk, VA, *HRSD.* Project Engineer establishing and maintaining the design schedule and project controls. Project consists of providing resilient design and construction solutions for five new sanitary sewer pump stations, more than 10,000 LF of 6- to 12-inch gravity sewer lines, and approximately 4,000 LF of 6- to 12-inch force main.

CDWWTP Return Activated Sludge Pump Station and Secondary Clarifiers, Miami, FL, *MDWASD.* Project Manager for delivering engineering, permitting and procurement services to support the replacement of the RAS pumps, new electrical substations, and new electrical buildings at Plant 2. Managed services including coordinating field investigations; preparing the basis of design report, preparing construction documents; obtaining City of Miami dry-run permit approvals, and assisting Water and Sewer Department during procurement activities, including the preparing Small Business Development and Goods and Services program requirements.

CDWWTP Oxygen Production Facility Design-Build, Miami, FL, *MDWASD.* Project Manager for design services, including overseeing subconsultants and coordinating with the Program Manager Construction Manager. The project consisted of preparing the Design Criteria Package for a new oxygen production facility. The project included construction ready components for the site preparation that were incorporated into the main design-build procurement process. Conducted field investigations to define the location of existing utilities and extension of demolition activities and completed quality assurance and quality control reviews on the individual construction ready components. During the procurement efforts of the Design Criteria Package, reviewed the qualifications and the technical proposals from the prospective design-builders.

GANNETT FLEMING

ALEJANDRO URIBE, PE

Water, Sewer, Reuse, Stormwater Infrastructure Lead

Years of Experience with Gannett Fleming:

15

Years of Experience with Other Firms:

N/A

Percentage of Time Dedicated to Contract:

30%

Education:

BS, Civil Engineering, Florida International University, 2008

MS, Civil/ Transportation Engineering, Florida International University, 2013

Registrations:

Professional Engineer in Florida - No. 75596

Alejandro has provided design, engineering, or support services on more than 80 projects, including various drainage and roadway improvements; field inspection and utility coordination; permitting and local regulatory coordination; and development of design reports and cost estimates. As registered professional engineer in the State of Florida, he regularly assists with water and roadway designs and coordinating transportation engineering projects, bringing a unique perspective to utility coordination for water infrastructure projects.

Relevant Projects

Englewood Storm Sewer Design, Miami, FL, *City of Miami.* Project Engineer for this drainage and roadway improvement in a neighborhood consisting of residential streets that spread over a 0.25-mile area. Responsibilities include field inspections, roadway and drainage design, and utility coordination.

Professional Engineering Design Consulting Services, Districtwide FL, *FDOT, District 6.* Lead Roadway Engineer for a series of roadway design projects, on an as-needed task-order basis, through a professional services agreement. The scope of the projects involve milling, resurfacing and widening of the road, signing, pavement markings, lighting, signalization, drainage and maintenance of traffic.

Reconstruction and Resurfacing of S.R. 968/West Flagler Street, Miami-Dade County, FL, *FDOT, District 6.* Project Engineer responsible for preparing design and contract plan for the reconstruction and resurfacing of S.R. 968/ West Flagler Street. The scope included reconstruction of a three-lane urban roadway, new lighting, signalization, a new drainage system, permitting, utility coordination, traffic control plans, and extensive coordination with South Florida Water Management District, Department of Environmental Resources Management, FDOT, City of Miami, Miami-Dade County, and adjacent projects. Responsibilities included geometric design, field reviews, and preparation of traffic control plans, cost estimates, and design-related reports.

U.S. Route 1 Express Project Development and Environment Study, Miami-Dade County, FL, *Miami-Dade Expressway Authority.* Roadway Engineer responsible for developing and evaluating design alternatives and concept layout of managed lanes on the South Miami-Dade Busway. Built within a 100-foot-wide right-of-way, the proposed managed lanes would permit toll-paying traffic to travel along the busway and avoid the severe traffic congestion along U.S. Route 1, which parallels the busway. Assisted in data collection for the analysis of the development of alternative concepts to determine the ability to carry traffic, reduce congestion, maintain or improve current bus operations, and meet the mobility needs of the corridor.

GANNETT FLEMING

MICHAEL BROWN, PE

Water, Sewer, Reuse, Stormwater Infrastructure

Years of Experience with Gannett Fleming:

27

Years of Experience with Other Firms:

N/A

Percentage of Time Dedicated to Contract:

30%

Education:

BS, Civil Engineering, Lehigh University, 1996

Registrations:

Professional Engineer in PA, NY

Michael has been directly involved in evaluations and assessments of water systems and water storage capacities on over 20 projects and has completed more than 100 W/WW models. He has performed and coordinated technical studies, planning studies, preliminary designs, and other engineering services for these systems. His specialized experience includes transient hydraulic modeling and analyses; field inspections and hydraulic testing; conceptual design of water system facilities; modeling and analyses of sanitary and combined sewer systems; water and wastewater system planning studies; and asset management and information management technologies for water and wastewater systems.

Relevant Projects

Water System Annual Services, Richmond, VA, City of Richmond Department of Public Utilities. Senior Project Engineer for guiding the development of a utility benchmarking study that was completed to identify the best practices and procedures to implement to improve performance for the raw water, treatment, and distribution systems. Tasks include reviewing Richmond's distribution system operations and maintenance data, assessing Richmond's management of the system, as well as comparison with four peer Virginia utilities and the national American Water Works Association (AWWA) benchmarking survey, identifying gaps in related programs, and developing recommendations. Performed pressure reducing valve (PRV) assessment and design for reviewing four existing PRV sites, developed recommendations for rehabilitation, and detailed design for valve and piping upgrades.

Northern Loop/Storage Tanks Water Distribution System Improvements, Water Distribution System Improvements, Louisa, VA, *Town of Louisa.* Quality Control Manager overseeing the design of a looping water main to improve the overall water quality and reduce disinfection byproducts. Duties included performing design constructibility review, schedule development and review, preparation and facilitation of IFB and pre-bid meetings, field site review/visitation, construction estimating, preliminary roadway replacement and maintenance of traffic design, and alternative construction site plan layout analysis. Construction services were provided for the installation of approximately 1,868 LF of 6-inch PVC C-900 pipe to connect a loop and replacement of an aged water main.

Combined Sewer Overflow Special Consulting Services, Franklin, Venango County, PA, *General Authority of the City of Franklin.* Task Manager for the development, calibration, and subsequent use of a model of the FGA sewer system. The SewerGEMS model simulated rainfall induced inflow and infiltration (RDII) to assess siphon capacity during a 10-year storm event. Sanitary flows were assigned to manholes in the model based upon flow metering data.

GANNETT FLEMING

BENJAMIN ISRAEL-DEVADASON, PE, CFM

Water, Sewer, Reuse, Stormwater Infrastructure

Years of Experience with Gannett Fleming:

16

Years of Experience with Other Firms:

3

Percentage of Time Dedicated to Contract:

20%

Education:

BS, Civil Engineering, Anna University (India), 2003

MS, Civil Engineering, Texas A&M University, 2007

Registrations:

Professional Engineer in TX

ASFPM Certified Floodplain Manager (CFM): Association of State Floodplain Managers, Inc. - No. US-08-03839

Benjamin is a nationally-recognized expert in two-dimensional (2D), three-dimensional (3D) modeling, and 3D computational fluid dynamics (CFD) modeling. He also has experience using other industry-standard tools, including HEC-GeoRAS, HEC-HMS, HECGeoHMS, and ArcGIS. Benjamin has conducted hydraulic analysis for over 300 structures for both federal and state clients throughout the US, including serving as the H&H Engineer reviewing the CFD study of SFWMD's C-43 West Basin Storage Reservoir.

Relevant Projects

Caloosahatchee River, C-43 West Basin Storage Reservoir - Type II Independent External Peer Review/Safety Assurance Review, West Palm Beach, FL, *SFWMD.* Senior H&H Engineer responsible for reviewing a computational fluid dynamics hydraulic study of multiple sections of the proposed storage reservoir design. Gannett Fleming provided professional engineering services to assist with restoration project tasks, as requested by the South Florida Water Management District. Professional engineering services were provided to assess, analyze, interpret, and evaluate design/engineering and construction criteria through a process known as Type II independent external peer review and safety assurance review for the C-43 West Basin Storage Reservoir design package four.

Modeling, Mapping, and Consequences Services, Baltimore, MD, *USACE, Baltimore District.* Senior H&H Engineer responsible for overseeing the hydrologic analysis, GIS development, and a stormwater system capacity study. A 2D stormwater/hydraulic model, XPStorm, was used to determine the capacity of the Annapolis stormwater systems and identify areas susceptible to localized flooding. Responsibilities included oversight and review of effort, including subbasin delineation using 2011 light detection and ranging (LiDAR) and custom geographic information system tools, followed by a manual review and revision of each subbasin using Google Street View and field inventory photos.

General Water System Annual Services, Richmond, VA, *City of Richmond Department of Public Utilities.* H&H Engineer responsible for conducting detailed dam break analyses of William's Island Dam, Bosher's Dam, and Z Dam in Richmond. Tasks included reviewing existing H&H data and topographic data; developing hydraulic models of the study site using HEC-GeoRAS, HEC-RAS, and geographic information system software; modeling the dam breach and running the unsteady flow hydraulic computations in HEC-RAS; and determining the flood inundation areas using geographic information system. Evaluated sunny day failure scenario to predict the flood extents and water surface elevations of outflow from the reservoir.

GANNETT FLEMING

TIFFANY HARRISON, ENV SP

Water, Sewer, Reuse, Stormwater Infrastructure

Years of Experience with Gannett Fleming:

10

Years of Experience with Other Firms:

5

Percentage of Time Dedicated to Contract:

40%

Education:

BS, Civil Engineering, Morgan State University, 2008

Registrations:

NASSCO Pipeline Assessment & Certification Program (PACP) - No. U-808-7262

NASSCO Manhole Assessment Certification Program (MACP) - No. U-808-7262

NASSCO Inspection Training Certification Program (ITCP) Cured in Place Pipe (CIPP) - No. CIPP-916-0201878

ENV SP: ISI

NASSCO-certified in pipeline, manhole, and lateral assessment as well as Cured-in-Place Pipe (CIPP), Tiffany regularly performs technical and design review of sanitary sewer systems and pipelines, including performing CCTV and QA/QC reviews and developing recommendations for rehabilitation design. Her expertise includes design services for pipeline rehabilitation, sewer replacement and relocation, condition assessment and inspection, point repairs, CIPP lining, and cleaning. She also develops layout and alignment designs, plans and specifications, cost estimates, performs utility coordination, assists with design of HDD and bypass pumping methods, and provides construction phase services.

Relevant Projects

Program and Construction Management Services, Miami, FL, *MDWASD.* Project Manager for a $1.95 billion consent decree program serving as a liaison on behalf of Miami Dade County in charge of completing design and design cost estimate reviews, overseeing and supporting early project planning, coordinating construction sequencing to minimize disruptions to plant operations, and assisting with project execution for design and construction phases. The role required close coordination between design consultants and key personnel of the consent decree program management and construction management program. Provided daily coordination with Miami-Dade plant operators, construction project managers, estimators, schedulers and the consent decree program coordinators, to verify that more than 170 wastewater projects were efficiently executed to maintain compliance while trying to reduce cost. Other responsibilities included processing consultant evaluations, processing and negotiating task order proposals, and processing invoices.

Water Main Replacement, Alexandria, VA, *VAW.* Project Designer for field investigations to verify survey and design conflicts, reviewing utility records and GIS, performing water main replacement design, QA/QC, and developing an engineer's estimates for 14 task orders. Task orders have included providing these services for approximately 12 miles of 6- to 12-inch water mains, as well as stakeholder coordination and permitting efforts, as required.

On-Call Pump Station Engineering Services, Baltimore County, MD, *Baltimore County DPW, Bureau of Engineering and Construction.* Project Designer for the design of a new influent main that led up to the pump station as part of an on-call engineering services contract. The 3,600 LF, 36-inch influent main will provide a redundant connection for the pumping station and 20 Mgal Catonsville Reservoir. The pipeline is located in a commercial district along U.S. Route 40, Baltimore National Pike, with extensive existing utilities. The design includes a connection to the existing 48-inch transmission main in the median of U.S. Route 40. Engineering services included topographic surveys, design concept plans, and permit applications preparation.

GANNETT FLEMING

DANIEL GONCZ, PE

Water, Sewer, Reuse, Stormwater Infrastructure

Years of Experience with Gannett Fleming:

23

Years of Experience with Other Firms:

16

Percentage of Time Dedicated to Contract:

20%

Education:

BS, Mechanical Engineering, Grove City College, 1986

Registrations:

Professional Engineer in Florida - No. PE83046, PA, WV, OH, TX

Dan regularly coordinates planning, design, permitting, and construction management services for municipal wastewater projects, including sanitary sewers, sewage pump stations (SPSs), and WWTPs. He has overseen and provided engineering services on more than 40 on-call or annual services contracts. Dan has served on more than 50 wastewater projects, with technical expertise overseeing the design of WWTPs, providing QA/QC services, and serving as an expert witness on sewage facilities project.

Relevant Projects

Consulting Engineering Services, Stormwater Illicit Discharge Detection, Green Tree Borough, Allegheny County, PA, *Borough of Green Tree.* Project Principal overseeing Green Tree Borough (Borough)'s Illicit Discharge Detection and Elimination (IDD&E) Program under its Phase II Municipal Separate Storm Sewer System (MS4) Stormwater Permit. Tasks included performing visual inspections of 17 stormwater outfalls and taking samples of any dry weather flows. Samples were analyzed for pollutants under the protocol, and a summary report of the results of the field screening was prepared and submitted to the Borough. Our firm also completed the inspection of approximately 1,000 manholes in the Borough's sanitary sewer system.

Forge River Watershed Sewer Project, Long Island, Suffolk County, NY, *Suffolk County Department of Public Works.* Sewer Design Task Leader for the design of a new sewer collection and conveyance system. Project tasks included evaluation of gravity sewers with pump stations and low-pressure sewers with individual grinder pump units. Co-author of Pressure Sewer System presented to the Suffolk County Department of Public Works for its use in determining best approach to the projects being undertaken as part of the Suffolk County Coastal Resiliency Initiative Program. Oversight of the development of the Map and Plan for the Forge River Watershed Sewer Project. Lead design engineer for the preparation of final low-pressure sewer system design documents.

Sewage Facilities Project, Consulting Engineering Services, East Lackawannock and Findley Townships, PA, *Neshannock Creek Watershed Joint Municipal Authority.* Project Manager for the design, bid, and construction phases of a $10.9-million sewage facilities project consisting of a 150,000 gpd sewage treatment plant, three pump stations, and 80,000 LF of pressure sewer installed by directional drilling in Mercer County, Pennsylvania. The project included the installation of 310 individual grinder pumps.

GANNETT FLEMING

RACHEL GOVELOVICH, PE

Water, Sewer, Reuse, Stormwater Infrastructure

Years of Experience with Gannett Fleming:

23

Years of Experience with Other Firms:

1

Percentage of Time Dedicated to Contract:

20%

Education:

BS, Civil Engineering Technology, The University of Pittsburgh, 2000

Registrations:

Professional Engineer in PA

Rachel has 24 years of pipeline engineering experience. She has provided reviews, oversight, design, permitting, or grant assistance for more than 40 pipeline projects, including more than 100,000 LF of pipeline ranging from 1.5- to 24-inches in size. Her expertise includes performing and coordinating technical, planning, and feasibilities studies; hydraulic analyses of existing and proposed transmission and distribution systems; and preparing and securing various permits from regulatory agencies. Rachel also regularly oversees and performs financial aid assistance applications and loan and grant administration for wastewater and water systems projects.

Relevant Projects

General Engineering Services - Stormwater and Municipal Grant Administration, Adams County, PA, *Conewago Township Municipal Authority.* Grant Phase Manager responsible for overseeing administration of Conewago Township's grants, including addressing grant requirements into design and bidding documents; completing quarterly reporting requirements; monitoring project schedule versus grant schedule; monitoring payment requests; maintaining documentation of grant compliance; and coordinating with funding agency representatives. Conewago Township's Plum Creek and related Park Projects received approximately $990,000 in grants.

Lower Nazareth Service Levels Water Distribution System Improvements, Easton, PA, *Easton Suburban Water Authority.* Project Manager and Client Manager providing design, permitting, bidding, and Pennsylvania Infrastructure Investment Authority (PENNVEST) financial application services to improve water distribution within the pressure zone, including improved reliability, fire flows, and overall pressure zone water age and quality.

WWTP Preliminary Engineering Report (PER), Professional General Engineering Services, Millsboro, DE, *Town of Millsboro.* Project Manager and Funding Assistance for development and delivery of a PER, environmental information document (EID), and environmental assessment (EA) for the new White Farm WWTP, force main, and beneficial reuse main (BRM) project. Leading project team and coordinating with regulatory agencies and the Town staff to advance this White Farm WWTP, the installation of 13,800 LF of proposed sanitary sewer force main to carry wastewater from PS 7A to the White Farm WWTP, and the installation of 13,800 LF of proposed BRM to send treated effluent from the WWTP to the development in the area of PS 7A.

GANNETT FLEMING

DANIEL JEON, ENV SP, PE, PMP

Water, Sewer, Reuse, Stormwater Infrastructure

Years of Experience with Gannett Fleming:

5

Years of Experience with Other Firms:

16

Percentage of Time Dedicated to Contract:

40%

Education:

BS, Chemical Engineering, InHa University, South Korea

BS, Civil and Environmental Engineering, Utah State University, 2002

MS, Civil and Environmental Engineering, Cornell University, 2004

Registrations:

Professional Engineer in PA, NY, MD, DC, VA

PMP: PMI - No. 2071535

ENV SP: ISI

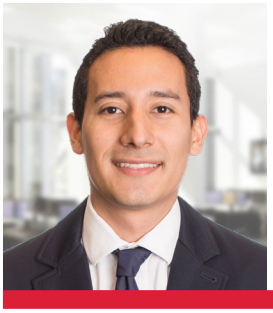
Leveraging his extensive W/WW infrastructure experience from more than 70 projects, Daniel will support the infrastructure team to deliver responsive, cost-effective designs that successfully address the City's needs. His expertise includes design and construction management services for pipeline design; internal and external quality management system (QMS) audits and evaluations of pipelines, including CIP and HDPE pipe. Daniel has provided designs, system and capacity evaluations, upgrade alternatives analyses, and recommendations for rehabilitation or replacement for more than dozens of pumping stations and treatment facilities, ranging in capacity from less than 1 mgd to 400 mgd.

Relevant Projects

Wastewater System Priority Projects, , Miami, FL, *MDWASD.* Process Project Manager for an assessment of the 120 mgd effluent pumping system to evaluate the operability and feasibility of converting into a dual-purpose pump station. Work included evaluating OOL project scopes and timetables to determine if there are any gaps or inconsistencies, analyzing them if they exist, and making recommendations on optimizing the three programs to avoid unnecessary rework to the scheduled wastewater treatment units, PSs, or pipeline upgrades throughout the MDWASD's system.

On-Call Engineering Services, Pump Station Upgrades, Baltimore County, MD, *Baltimore County DPW Bureau of Engineering and Construction.* Senior Project Engineer providing QA/QC and coordinating the design team and providing a review of design drawings, specifications, and construction estimates for improvements. The project scope involved constructing new 36-inch influent and 30-inch effluent water mains. The 36-inch influent main provides a redundant connection for the pump station and 20-million-gallon Catonsville Reservoir. The pipeline is located in a commercial district along U.S. 40 with extensive existing utilities. The design also included a connection to the existing 48-inch transmission main in the median of U.S. 40. Project tasks included topographic surveys, right of way and easement plats, permit applications, and engineering services during construction.

Berkshire, Anchorage 1, and Riva II Sewer Pump Stations, Anne Arundel County, MD, *Anne Arundel County.* Senior Project Engineer for design and engineering services for upgrading three sewage pump stations. The project scope consists of replacing sewage pumps, rehabilitating the existing cathodic protection system, upgrading HVAC system to comply with National Fire Protection Association standards, and associated electrical and instrumentation components. Evaluated the county's existing sewer system to confirm emergency storage capacity at each station per Maryland Department of Environment requirements and provided a recommendation to add an emergency storage tank.



GANNETT FLEMING

ANDRES SANDOVAL, PE

Water, Sewer, Reuse, Stormwater Infrastructure

Years of Experience with Gannett Fleming:

8

Years of Experience with Other Firms:

2

Percentage of Time Dedicated to Contract:

30%

Education:

BS, Civil Engineering, Industrial University of Santander, 2013

Registrations:

Professional Engineer in Florida - No. PE86665

FDOT Temporary Traffic Control (TCC) Advanced (Refresher) Training: Metro Florida Safety Council

Andres is a Project Engineer responsible for assisting in the design and plans production for Florida transportation projects, including roadway resurfacing, urban roadway reconstruction, new highway construction, and limited-access freeway projects. His experience includes geometric design, signing and pavement markings, traffic control plans, and drainage plans. In addition, he has been in charge of the engineering calculations required to accomplish proper and correct roadway design. This experience will support infrastructure design requiring utility coordination with FDOT.

Relevant Projects

S.R. 826 Palmetto Widening, Reconstruction of S.R. 826/Palmetto Expressway Segment 4, Miami, FL, *FDOT, District 6.* Roadway Designer for developing design, providing 3-D modeling of the corridors (mainline, frontages roads, and side streets), and plans for this project. The proposed improvements include adding express lanes to the mainline (two 12-ft express lanes in each direction), reconstruction of the mainline and on/off ramps, reconstruction of the frontage roads including the addition of 7-ft bike lanes and 6-ft sidewalks, bridges replacements at NW 47th Avenue and NW 42nd Avenue, new drainage system, new lighting, new signage, new intelligent transportation systems (ITS), and new signalization along mainline and frontage roads.

Reconstruction and Resurfacing of S.R. 0968/West Flagler Street, Miami-Dade County, FL, *FDOT, District 6.* Roadway Designer assisting in the preparation of the roadway plans, signing and pavement marking plans, and lighting plans for this safety effort. The project is for the design of major roadway improvements to Flagler Street, a three-lane urban facility with on-street parking and a new bicycle lane. The scope of work includes design for reconstruction and upgrade of the roadway, drainage system, lighting, and signalization. Also included in the scope are permitting, utility coordination, traffic control plans, and extensive coordination with the South Florida Water Management District, Miami-Dade County Department of Environmental Resources Management, FDOT, City of Miami, Miami-Dade County, and adjacent projects.

Henry Kinney Tunnel Design Services Tunnel Rehabilitation, S.R. 5/ US-1 from SR-862/I-595 to North of SR 842/Broward Boulevard, Fort Lauderdale, FL, *FDOT, District 4.* Roadway Designer for design and preparation of the roadway plans for this rehabilitation project. The scope consists of constructing a pedestrian plaza at the intersection of Las Olas Boulevard and SE 6th Avenue over the Henry E. Kinney Tunnel in the City of Fort Lauderdale in Broward County. The project will extend the tunnel deck northward approximately 50 feet from the edge wall of Las Olas Boulevard to accommodate the pedestrian plaza over the tunnel.

GANNETT FLEMING

YURFA GLENNY, PMP, ENV SP

Value Engineering and QA / QC Lead

Years of Experience with Gannett Fleming:

5

Years of Experience with Other Firms:

17

Percentage of Time Dedicated to Contract:

40%

Education:

BS, Civil Engineering, Florida International University, 1999

Registrations:

PMP: PMI - No. 1608621

ENV SP: ISI – No. 26748

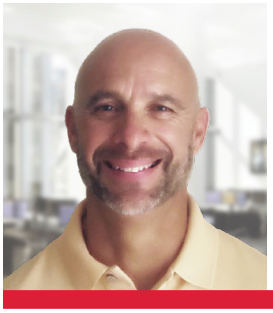
With experience supporting municipal clients in support of their >$200M CIP programs, including for the City of Hollywood, Yurfa brings over 22 years of W/WW experience in project delivery, program management, and quality oversight to this contract. She has led design teams for large utility programs around the country, such as for MDWASD Consent Decree for wastewater treatment improvement, Sacramento Regional County Sanitation District, and U.S. Department of the Interior, Bureau of Reclamation, to meet rigorous regulatory or stakeholder deadlines and budgets. She has led permitting with FDEP, multiple South Florida municipalities, Florida Health Department and US Army Corps of Engineers that will be of benefit to the team and to this project.

Relevant Projects

Five-Year Capital Improvements Program Controls, Hollywood, FL, *City of Hollywood.* Project Manager working closely with the city of Hollywood's Utility Financial Director and capital improvements management team to monitor and control Hollywood's $200 million capital improvement program. Gathered and monitored portfolio expenditures and project schedules and provided monthly reports to Hollywood's Utilities Director and other stakeholders. Projects were input in Oracle Primavera, and reports were created in Microsoft Excel format per Hollywood request. Monthly deliverables included programmatic cashflow graphs at portfolio level, project-specific level, and individual life-cycles project levels.

Wastewater System Priority Projects, Miami-Dade County, FL, *MDWASD.* Partner Principal, Advisor, and Supervisor performing project management and construction management tasks. Knowledgeable on the wastewater facilities, collection system, and disposal facilities, providing institutional experience for consideration in the conceptual plan for the NDWWTP. Team duties include managing design consultants, providing and maintaining reporting requirements for the client and stakeholders; assessing and managing risk; managing design processes; managing change; providing quality assurance reviews; and acting as the liaison between WASD operations and the design consultants. Also developing progress reports; recommending approval of deliverables and invoices; preparing for and holding meetings; and updating and managing the project schedule milestones to adhere to Ocean Outfall Legislation implementation program requirements.

S-27 Forward Flow Pump Station and Gate Structure Improvements, Miami, FL, *SFWMD.* Project Manager responsible for design of a new flood control pump station and associated infrastructure to improve the system-wide regional water management existing flood protection level of service with consideration to future conditions, including sea level rise projections throughout South Florida.



GANNETT FLEMING

JORGE OROZCO

Value Engineering and QA / QC Lead | Constructibility Lead

Years of Experience with Gannett Fleming:

2

Years of Experience with Other Firms:

36

Percentage of Time Dedicated to Contract:

30%

Education:

AS, Drafting and Design, Miami – Dade Community College, 1986

Pipeline Assessment Certification Program, 2006

Jorge's knowledge of local Florida regulations will complement the team in the review and update of plans, specifications, and procedures. He brings 38 years' experience overseeing and monitoring construction activities for compliance with project plans and specifications, as well as establishing guidelines for a range of W/WW capital improvements projects throughout Florida.

Relevant Projects

Program Management and Construction Management Services, Miami, FL, *MDWASD*. Construction Manager responsible for the construction management of three major capital improvement projects consisting of digester upgrades, acid-phase construction, and startup services. Works on effluent pump station 1 through 6, electrical improvements, electrical building substation 7 and 8, and odor control scrubber building improvements. These projects range from $12 million to $93 million with a total construction value of $130 million. Manages the Engineer of Record (EOR), contractors, and utilities from the pre-construction phase, as well as construction through the project closeout phase.

City of Miramar WTP Design and Construction, Miramar, FL, *City of Miramar*. Lead Designer for the 4.5 mgd (12 mgd peak) water treatment facility. Performed civil/mechanical piping designs, as well as led a team of designers. Work consisted of a membrane cleaning area, chemical rooms, generator and control room, odor control (degassifiers and scubber systems were used), chlorine room, two concentrate deep well injection wells, one monitor well, and earthwork and distribution piping.

Springtree WTP and WWTP Construction, Sunrise, FL, *City of Sunrise, Florida*. Served as Resident Engineer for the $10 million construction phase of the Springtree WTP and WWTP. During construction, duties included conducting inspections on all concrete forming and pouring, sandblasting, electrical and piping installations, utility coordination, and site work preparations.

Land Development Drainage Design, Various Locations, Miami-Dade County, FL. Construction Manager responsible for the construction management of more than 14,000 LF of exfiltration drainage system installations in Miami-Dade County and several civil site drainage design projects. Coordinated with surveyors and handled three-dimensional CAD files. Designs included FEMA Drainage Projects, Site Parking Designs, Broward County Neighborhood Improvement Project, City of Hollywood Landfill Drainage Modifications, Salado Creek Drainage Design, and CBDD Culvert Replacement.

GANNETT FLEMING

ALINA FERNANDEZ, PE

Value Engineering and QA / QC Lead | Roadway

Years of Experience with Gannett Fleming:

21

Years of Experience with Other Firms:

3

Percentage of Time Dedicated to Contract:

30%

Education:

BS, Civil Engineering, Florida International University, 1999

Registrations:

Professional Engineer in Florida - No. PE60714, PR

TTC Advanced Training: FDOT

As a Project Manager and Designer on more than 45 projects in Florida, Alina has a deep understanding of Florida geography. In addition to 24 years of experience in transportation engineering, particularly in the design of highways, interchanges, and urban and rural roadways, Alina is also experienced coordinating permitting, design, and construction support services for various pump station and sanitary sewer collection system projects in Miami-Dade and Broward Counties,. She has also provided a range of drainage design and stormwater modeling services the Department of Environmental Resources Management.

Relevant Projects

Reconstruction and Resurfacing of S.R. 968/West Flagler Street, Miami-Dade County, FL, *FDOT, District 6.* Lead Drainage Engineer for the design of major roadway improvements to Flagler Street, a three-lane urban facility with on-street parking and a new bicycle lane. The scope of work includes design for reconstruction and upgrade of the roadway, drainage system, lighting, and signalization. Also included in the scope are permitting, utility coordination, traffic control plans, and extensive coordination with the SFWMD, Miami-Dade County Department of Environmental Resources Management, FDOT, City of Miami, Miami-Dade County, and adjacent projects.

South Florida East Coast Corridor Regional Transit Alternatives Analysis, Phase 2, Miami-Dade, Broward, and Palm Beach Counties, FL, *FDOT, District 4.* Drainage Engineer for the completion of an alternatives analysis study and leadership of the alternative development and design for the corridor-length locally preferred alternative. This 85-mile-long corridor study involved evaluating a short list of transit technologies and station locations in a 1-mile-wide study area centered on the existing Florida East Coast Railway line. Project tasks included coordination with SFWMD and preparation of the Drainage Technical Memorandum.

Professional General Engineering and Architectural Services, Trolley Infrastructure Improvements, Doral, FL, *City of Doral.* Project Manager for design engineering services for this installation of bus shelters and/or benches at 21 sites within the City of Doral boundaries. As part of the installation, existing swales impacted by the proposed construction will be re-sodded/ regraded and pedestrian facilities, including sidewalk, ADA ramps, curb, and gutter, will be upgraded or improved if applicable.

Miscellaneous Drainage Design Services, Miami, FL, *Miami-Dade Department of Environmental Resources Management.* Project Engineer for miscellaneous drainage design and stormwater modeling services, including the preparation of drainage improvement plans to correct drainage problems throughout unincorporated Miami-Dade County.

GANNETT FLEMING

CONSTANCE HEPPENSTALL, PMP

Value Engineering and QA / QC

Years of Experience with Gannett Fleming:

2

Years of Experience with Other Firms:

36

Percentage of Time Dedicated to Contract:

30%

Education:

BA, Economics, University of Virginia, 1983

MSIA, Finance, Carnegie Mellon University, 1986

Registrations:

PMP: PMI - No. 1878553

Municipal Advisor Principal: Municipal Securities Rulemaking Board - No. U2682626

Constance's expertise includes developing revenue requirements and cost of service (COS) studies for water and sewer systems for both municipal clients and private companies. Prior to Gannett Fleming, she was employed by various underwriting firms in the municipal bond industry and was involved in all facets of municipal bond issuance during her 16-year career in municipal finance, including financial modeling and credit analysis for her clients. She regularly performs review and analysis of utility accounting and operating data; develops COS allocations, rate design, demand studies, bill analysis computer models, and databases of client capital and operating costs; and prepares and presents results of studies performed for various utility clients.

Relevant Projects

Water Rate Study, Bradford, PA, *Bradford City Water Authority.* As Project Manager, conducted a bill analysis and COS study. The COS allocation study included the allocation of pro forma costs of service to the customer classifications and used the base-extra capacity method of allocation. A computer rate model was used to design a rate structure to recover the total revenue needs of the water system incorporating the results of the cost allocation study.

Comprehensive Water and Sewer Rate Study, Carlisle, PA, *Borough of Carlisle.* Project Manager for study requiring the projection of revenue requirements, allocation of the COS for both water and sewer operations, and development of rate design for the Borough of Carlisle.

Professional Engineering Consultant Services - Stormwater Programming and Authority Implementation, Public Utility Commission Fillings, York County, PA, *Borough of Hanover.* Project Manager for a cost analysis to assist the Borough in the preparation of an imposed stormwater fee. The project included identifying the current level of spending, staff roles, permit compliance issues, and developing a means to develop a transparent, sustainable source of revenue to make certain that obligations to the community are upheld in the most cost-effective manner possible. Led and oversaw cost analysis and valuation, group and staff consultations, program building, and GIS analysis of infrastructure and impervious coverages.

COS Allocation and Rate Design Studies, Rockville, VA, *Aqua Virginia, Inc.* Rate Analyst/Project Manager for studies requiring the allocation of COS to customer classes for the client's rate case. The allocation factors were developed using the base-extra capacity method and assigned the various costs to each of the customer classifications. A rate design computer model was developed to facilitate the process. The rates were designed to move the proposed level of revenues toward the indicated COS for each classification. The studies were summarized into exhibits. Responses to interrogatories were prepared and distributed to the parties.

GANNETT FLEMING

ELIK LIVAY, PE, PMP, ENV SP, DBIA

Value Engineering and QA / QC

Years of Experience with Gannett Fleming:

20

Years of Experience with Other Firms:

6

Percentage of Time Dedicated to Contract:

20%

Education:

AA, Civil Engineering Technology, Ruppin Academic Center, 2001

BS, Civil Engineering, Morgan State University, 2004

MCE, Civil Engineering, Norwich University, 2008

Registrations:

Professional Engineer in Florida - No. 75329 and 9 other states

PMP: PMI - No. 1372191

ENV SP: ISI - No. 19994

Designated Design-Build Professional (DBIA): Design-Build Institute of America

Elik has served in a QA/QC role on more than 15 projects, including for MDWASD's Wastewater System Priority Projects. He brings extensive experience managing and overseeing the delivery of engineering and design services for 100+ W/WW pipeline, pumping, and treatment facility projects. Elik's design experience includes thousands of LF of new and rehabilitated pipeline, including force mains, sanitary sewer, pressure sewer, gravity sewer, and interceptors up to 102-inches-in-diameter.

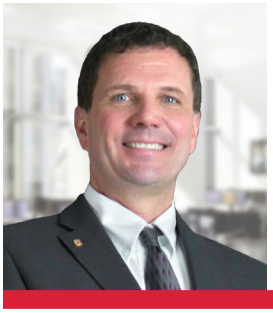
Relevant Projects

Wastewater System Priority Projects, Miami, FL, *Miami Dade County.* QA/QC and Task Manager responsible for executing design projects at the Central District and South District WWTPs. Responsible for managing design consultants; providing and maintaining reporting requirements for the client and stakeholders; assessing and managing risk; managing design processes; managing change; providing quality assurance reviews; and updating and managing the project schedule milestones to adhere to OOL Implementation Program requirements.

Wastewater System Priority Projects, OOL Program, NDWWTP High-Level Disinfection System and Peak Flow Treatment Conceptual Design Report, Miami, FL, *Miami-Dade County.* QA/QC for the evaluation and conceptual design of the improvements to the NDWWTP effluent pump station to meet OOL program requirements at the NDWWTP, under Task Authorization 22. Our firm completed the evaluation of converting the existing effluent pump station into a dual-purpose pump station to convey secondary effluent to the future high-level disinfection facilities and to convey secondary effluent to the existing ocean outfall.

Ferebee Avenue Pump Station Replacement Sanitary Sewer Project, and Park Avenue Pump Station Replacement, Chesapeake, VA, *HRSD*. Pump Station Task Manager for two new pump stations. Duties entailed providing overall guidance and performing quality assurance/quality control for evaluation and design of two new pump stations. Also, for coordination with multiple disciplines, subconsultants, and a separate pipeline project. Pump station expert providing technical expertise including sizing, basis of design, hydraulic analysis, materials of construction, and specifications.

Berkshire, Anchorage 1, and Riva II Sewer Pump Stations, Anne Arundel County, MD, *Anne Arundel County Department of Public Works.* Project Principal for budget and schedule compliance, staffing, coordination with client and project team, and providing support to the project manager in overall project execution for design of upgrades to the sewage pump stations as part of the county's continuous efforts to upgrade the existing infrastructure in compliance with applicable federal, state, and local requirements and standards.



GANNETT FLEMING

ANTHONY COSTELLO, PE, ENV SP

Value Engineering and QA / QC

Years of Experience with Gannett Fleming:

8

Years of Experience with Other Firms:

25

Percentage of Time Dedicated to Contract:

30%

Education:

BE, Civil Engineering, Manhattan College, 1988

ME, Environmental Engineering, Manhattan College, 1990

Registrations:

Professional Engineer in NY

ENV SP: ISI - No. 23487

Tony will conduct comprehensive QC reviews to verify design deliverables and processes are in accordance with plans, specifications, and regulatory requirements. He regularly develops and reviews detailed designs and specifications, performs QA/QC services, and provides design services during construction. With 33 years' experience managing and directing engineering efforts on various WW/W projects, he specializes in developing and reviewing designs for wastewater treatment, pumping, and collection systems, as well as the development of bypass pumping for pump stations and temporary bypass pumping systems for stormwater diversion during construction.

Relevant Projects

S-27 Forward Pump Station and Gate Structure Improvements, Miami, FL, *SFWMD.* Lead Process Mechanical Engineer responsible for preliminary design of a 1,500 cfs and water control structures, including a generator and control building to house emergency and ancillary electrical equipment, to improve the flood protection level of service and address sea level rise projections. Responsibilities include coordination with CFD modeling for selection of pumps and inlet and outlet configurations.

Lake Belmar Pump Station, Belmar, FL, *Miami-Dade County Department of Transportation and Public Works.* Lead Process Mechanical Engineer for preparation and review of construction documents for preliminary design of a new stormwater pump station in the area of Lake Belmar to mitigate flooding in Miami-Dade County. Services for the project include data collection, field investigations, and review of existing as-built drawings of the existing stormwater pipe, outfall, and project site for preparation of an engineering report for the pump station. Responsible for pump selection and design and incorporation into the pumping system of a solids capturing system that will capture and remove solids before being discharged into the waterway. Responsible for overall QA/QC Review and follow-up on the system.

Mahwah and Pomona Pump Station Improvements, Rockland County, NY, *Rockland County, New York.* Project Manager for the improvements to the Mahwah and Pomona pumping stations. The Mahwah station has four pumps and an 8 mgd maximum design flow. The Pomona station has three pumps and a 2.9 mgd maximum design flow. The pump discharge elbows inside the wet wells had experienced excessive wear and needed to be replaced. The work required bypass pumping of the pump station's wet wells. Oversaw the evaluation of the isolation gates installation on the influent piping from the communitor chamber.

GANNETT FLEMING

DENNIS FUNK, PE

Value Engineering and QA / QC

Years of Experience with Gannett Fleming:

24

Years of Experience with Other Firms:

12

Percentage of Time Dedicated to Contract:

30%

Education:

BA, Chemistry and Biology, West Virginia University, 1980

BS, Civil Engineering, West Virginia University, 1986

Registrations:

Professional Engineer in Florida - No. PE80652, MD, NY

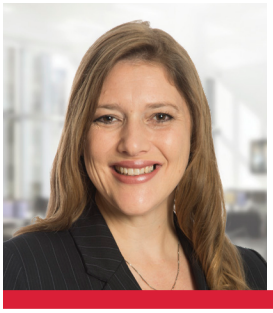
Dennis brings more than 35 years of experience planning, designing, and providing construction support services for water and wastewater distribution and transmission facilities as well as utility relocations. He is experienced in planning studies, alignment studies, design of pipelines and appurtenances, sizing facilities, hydraulic evaluations, permitting, and preparing detailed plans and specifications for construction. His projects have included pipelines up to 102-inch diameter, and various materials including PVC, DIP, Steel, Fiberglass Reinforced Plastic (FRP), and Prestressed Concrete Cylinder Pipe (PCCP).

Relevant Projects

Catonsville Pump Station Upgrades, Baltimore, MD, *Baltimore County Department of Public Works.* Task Manager overseeing and reviewing design improvements to the water pump station and water main. Meets with the client and is the main point of contact for the project to make certain that work meets schedule and budget requirements. The 36-inch influent main will provide a redundant connection for the pumping station and 20 Mgal Catonsville Reservoir. The pipeline is located in a commercial district along U.S. 40 with extensive existing utilities. The design includes a connection to the existing 48-inch transmission main in the median of U.S. 40. Services included topographic surveys, ROW and easement plats, permit applications, and engineering services during construction.

Water Distribution Master Plan, Richmond, VA, *City of Richmond Department of Public Utilities.* Project Engineer for preparation of an evaluation and master plan for a large water distribution system serving 200,000 city residents plus the surrounding region. Responsibilities included developing city water demand projections; creating a 1,600-pipe hydraulic model covering seven pressure zones; performing hydraulic evaluations of the system's capacity to meet fire-suppression needs, future demands within the city, and the high rate of growth occurring in the surrounding region; and preparing a phased capital improvement program. Work included extensive field studies for model calibration and pump station evaluations.

Hoadly Road Tank and Pump Station Services, Manassas, VA, *VAW.* Project Engineer assisting on the study, preliminary design, and construction phase for the design and construction of a new ground storage tank, pumping station, and water main to provide supplemental storage and pumping during peak demand periods. Responsibilities included preliminary design studies to establish the storage volume and pump station capacity, concept design for the tank and pump station, and civil design for the site. Construction-phase responsibilities included shop drawing review of the tank, civil, and process components.



GANNETT FLEMING

JESSICA HOU, PE, ENV SP, PMP

Value Engineering and QA / QC

Years of Experience with Gannett Fleming:

24

Years of Experience with Other Firms:

3

Percentage of Time Dedicated to Contract:

20%

Education:

BS, Civil Engineering, Old Dominion University, 1998

ME, Environmental Engineering, Old Dominion University, 2004

Registrations:

Professional Engineer in VA

ENV SP: ISI - No. 7548

PMP: PMI - No. 57938

Jessica has provided design, management, or construction services on more than 50 W/WW projects. She has extensive experience managing, overseeing, and coordinating multi-discipline teams for the delivery of various engineering and design services for water treatment, pumping, and storage facilities, as well as pipeline projects ranging from 4- to 30-inches-in-diameter, and is adept at fostering cohesive professional working relationships and employing a collaborative team approach to multi-phase projects.

Relevant Projects

Ferebee and Park Avenue Pump Stations Replacement and Rehabilitation, Chesapeake, VA, *HRSD.* Project Manager for replacement of two pump stations, a 12-inch force main, and 24- and 18-inch gravity main replacement. Preliminary engineering services include detailed alternatives evaluation, use of weighted decision criteria software, stakeholder management, and preliminary design. The current project is at 50 percent design. Current tasks include pre-construction, contract administration, field engineering and inspection.

Larchmont Area Sanitary Sewer Improvements, Norfolk, VA, *HRSD.* Program Manager for the replacement of 8 pump stations with 5 new pump stations and associated linear assets, jointly managed by the district and Norfolk Utilities. Led the pump station design team, pipeline design team, communications team, and construction management team for a successful multi-phased long-term replacement program. The project is currently in the preliminary engineering phase and will be delivered by construction manager at-risk collaborative delivery method.

Annual Engineering Services, Virginia Beach, VA, *City of Virginia Beach.* Project Manager for a task-order-based contract covering various public utility projects, including designs for a pump station and pipeline and staff augmentation. Project work included the 14th Street and Parks Avenue (PS No. 117), where she served as Task Manager, evaluating the need for replacing an existing pump station. The project includes performing a site assessment, analyzing data, and performing calculations to assess the hydraulic capacity of the existing pump station and preliminary design of the replacement pump station.

Water and Sewer Improvement Projects, Elizabeth City, NC, *City of Elizabeth City.* Project Engineer providing design support for a project involving preparation of plans and specifications for the replacement of existing water and sewer infrastructure. Three separate projects were completed under this contract, including those on Pearl Street, Roanoke Avenue, and South Road Street, which involved a total 5,200 feet of water main and 4,800 feet of gravity sewer.

GANNETT FLEMING

VICENTE ARREBOLA

Value Engineering and QA / QC

Years of Experience with Gannett Fleming:

1

Years of Experience with Other Firms:

38

Percentage of Time Dedicated to Contract:

40%

Education:

BS, Environmental Engineering, University of Florida, 1979

Vicente's extensive WW/W consulting and program management experience includes 8 years serving as Assistant Director of WASD's Wastewater Systems and 18+ years as the Division Chief of Miami-Dade County Department of Environmental Resources Management. He brings first-hand knowledge of local Operations and Maintenance (O&M) programs, guidelines, and preferences, as well as specialized expertise working and coordinating with local, state, and federal agencies and stakeholders.

Relevant Projects

CD Program – WWTPs Improvement Program Services, Miami, FL, *MD WASD.* Senior Advisor/Senior Program Manager for the firm's $30 million contract with WASD for design services related to the CD's WWTPs Improvement Program. Provided the design teams with historical design criteria and operational problems encountered by the client to more holistically address the design issues and challenges encountered in the different projects assigned. Assisted in the development of internal QA/QC protocols.

MD WASD – Assistant Director, Wastewater Systems, (2005-2013), Miami, FL. Managed the Department's Wastewater Group, which consisted of four operating divisions with an annual operating budget of $153 million and 897 employees. Planned the operations, maintenance, and future expansions of the Department's wastewater system. Prepared the Group's annual operating budget, as well as its multi-year capital plan budget. Procured, negotiated, and managed consulting, construction, and goods and services contracts for the wastewater system's operation. Interfaced and negotiated with local, state and federal agencies that have regulatory oversight of the Department's wastewater system. Initiated and completed condition assessments of the three regional WWTPs in the system, and of more than 100 miles of large-diameter PCCP. Coordinated the emergency response for the catastrophic failure of a 72-inch diameter force main and developed the design criteria and managed the trenchless rehabilitation of the most critical 1.5 miles of same. Helped negotiate a 15-year, $1.6 billion CD with the United States EPA and FDEP designed to minimize SSOs, making certain compliance with Federal Clean Water Act standards and establishing a comprehensive O&M program in conformance with the EPA's Capacity, Management, Operations and Maintenance Programs guidelines. In conjunction with the CD, developed a capital works plan addressing the renewal and replacement needs of the Department's 6,000 miles of wastewater collection/transmission system, 1,039 wastewater pump stations and three regional WWTPs with a combined capacity of 368 mgd. Identified the need for sanitary sewer infrastructure improvements to address the rapidly growing commercial and residential area. Coordinated the development of the design criteria for a new 20 mgd regional master pump station and collection system improvements consisting of gravity sewer mains ranging in size from 24-to 48-inches-indiameter.

GANNETT FLEMING

SOPHIA LISKOVICH, PE

Water / Wastewater Treatment Plants Lead

Years of Experience with Gannett Fleming:

16

Years of Experience with Other Firms:

5

Percentage of Time Dedicated to Contract:

30%

Education:

BS, Civil Engineering, University of Maryland, 2002

Registrations:

Professional Engineer in Florida - No. 75781, VA, MD

Sophia will leverage her storage and treatment facility experience to successfully provide compliant, quality designs should Gannett Fleming be selected to provide treatment solutions under this contract. She specializes in performing water treatment process selections, chemical dosage design, and water supply evaluations and studies for the removal of chemicals and contaminants and has designed treatment processes for systems ranging in capacity from less than 1 to 120 mgd.

Relevant Projects

On-Call Engineering and Support Services, Treatment Facility and Pump Station Engineering Projects – Amyclae WST, Stafford County, VA, *Stafford County Board of Supervisors, Department of Public Works - Utilities Division.* Project Manager for tank permitting assistance and coordination with the Federal Aviation Administration for the tank recoating and repair project for Amyclae WST.

Hays Mine WTP Phase 1 Filter Renovations, Pittsburgh, PA, *Pennsylvania American Water.* Lead Engineer for the design, permitting, and bidding services for Hays Mine Phase 1 filter renovations and underdrain replacement. The Hays Mine water plant is a 100-year-old 70-mgd water treatment facility. The design also included necessary lead and asbestos remediation.

Water and Wastewater Pump Stations – On-Call Engineering Services, Sunnybrook Pumping Station Improvements, Baltimore County, MD, *Baltimore County DPW, Bureau of Engineering and Construction.* Project Engineer for design improvements to a 300 gpm water pump station. Responsible for the design of the iron and manganese removal system and Maryland Department of the Environment coordination with water supply. The water quality improvements include the introduction of the iron and manganese removal vessels, backwash tank, backwash pumping system, and chemical feed systems.

Canal Road WTP Ozone System Upgrade, Franklin Township, NJ, *New Jersey American Water.* Engineer for the pre-purchase specification and general contractor specification of a new ozone system for an existing 8-mgd plant. Components specified include ozone generators, power supply units, cooling water system, destruct units, supplemental nitrogen system, instrumentation, and controls. Also responsible for sizing and specifying the 50 percent peroxide chemical system.

GANNETT FLEMING

LARS AUGUSTIN, PE

Water / Wastewater Treatment Plants

Years of Experience with Gannett Fleming:

28

Years of Experience with Other Firms:

1

Percentage of Time Dedicated to Contract:

20%

Education:

BS, Environmental Engineering, Wilkes University, 1995

MS, Environmental Engineering, Manhattan College, 1999

Registrations:

Professional Engineer in NY

Lars brings 28+ years of experience in the operation, maintenance, and troubleshooting of treatment plants, with expertise in the development of rehabilitation and replacement designs for aging WW/W infrastructure. This includes systems for treatment plants and pump stations, ranging from 0.4 mgd to 180 mgd. He has extensive experience managing and directing engineering efforts for various municipal and industrial infrastructure projects, as well as assisting with preparation of design drawings, contract bid documents for improvements, shop drawing review, and providing construction oversight.

Relevant Projects

South Shore Water Reclamation Facility (formerly known as Bay Park Sewage), Nassau County, NY, *Nassau County Department of Public Works (NCDPW).* Project Manager for engineering and design services for the rehabilitation of the South Shore sludge dewatering facility and improvements to the grit removal facility. Prepared contract bid documents for improvements to the existing facility including new dewatering centrifuges; sludge feed pumps and grinders; polymer feed systems; inclined screw; belt and shuttle belt conveying systems; bin loading systems; washwater booster pump system; sodium hydroxide and hypochlorite storage and feed systems; odor control system; hazardous gas monitoring system; process monitoring control system; HVAC; fire alarm; and electrical systems. This project was awarded the 2018 Diamond Award.

Forge River Watershed Sewer Project, Suffolk County, NY, *Suffolk County Department of Public Works.* Project Manager for the planning, permitting, and design of a new sewer collection, conveyance system, and an advanced wastewater treatment facility (AWTF). Prepared map and plan detailing the proposed sewer service area and design of sewer infrastructure including the financial impacts on the community for Suffolk County legislature approval as part of process for formation of new sewer district. Prepared sewer and AWTF engineering reports including sewer district boundary and projected flows and wastewater characteristics, alternatives analysis, AWTF unit process and sewer design basis, regulatory requirements, project costs, financing and schedule.

Sewer District No. 23 Coventry Manor WWTP Improvements, Suffolk County, NY, *SCDPW.* Project Principal for the oversight on the design of a new WWTP that will employ the biologically engineered single sludge treatment (BESST) system to replace the existing rotating biological contactors (RBC) treatment system, including the implementation of new process blowers. Duties include (QA/QC) on the design documents for two construction contracts for public bidding and construction of the new facility.

GANNETT FLEMING

GRACE WANG, PHD, PE

Water / Wastewater Treatment Plants

Years of Experience with Gannett Fleming:

1

Years of Experience with Other Firms:

29

Percentage of Time Dedicated to Contract:

30%

Education:

BS, Environmental Engineering, Tsinghua University, 1989

MS, Environmental Engineering, Tsinghua University, 1994

PhD, Civil and Environmental Engineering, Virginia Polytechnic Institute and State University, 1999

Registrations:

Professional Engineer in MD, VA

Grace has provided evaluation, design, or management services on more than 20 WWTF projects for facilities ranging from 0.3 to 86 mgd. She has recently served as Contract Manager for numerous On-Call WW Engineering Services and various municipal WWTF replacements and upgrades throughout the Mid-Atlantic Region. She brings extensive experience and familiarity with the evaluation and design of various process, treatment, and equipment improvements, including SBR, nutrient removal and reduction, UV disinfection; chemical feed and storage systems; filter/media improvements; and hydraulic and hydraulic (H&H) modeling and analysis.

Relevant Projects

Western Regional Treatment Plant (WRTP) Outfall Hydraulic Modeling Design, Chester, PA, *DELCORA.* Task Manager for the design of DELCORA's WRTP outfall project. The WRTP treats approximately 50 mgd of flow and hauled-in waste. The scope of services included utilizing a multiport diffuser outfall to distribute the plant effluent within the Delaware River with the goal of increasing the permitted average daily flow capacity of the WRTP to 70 mgd and a peak flow to 120 mgd.

Back River WWTP, Project 2 – Activated Sludge Plant 4, Construction Phase Services, Baltimore, MD. As Contract Manager, managed a team consisting of 12 engineering firms and a total engineering fee of $20 million. Reviewed contract change notice, shop drawing, requests for information (RFI), field inspections, and all issues brought up by the contractor and construction management. Project received above 90 percent in performance reviews by the City of Baltimore. This construction project included approximately 7,000 auger cast-in-place piles, six activated sludge reactors with a combined volume of 40 million gallons, a 15-mgd pumping station, three sludge pumping stations with a total capacity of 86 mgd, twelve 120-foot diameter secondary clarifiers, and other facilities and piping for wastewater treatment to achieve permit requirements.

WWTP Enhanced Nutrient Removal (ENR) Improvements, Warsaw, VA. As Senior Process Engineer, managed the design for a replacement 0.3 mgd advanced WWTP designed for nitrogen and phosphorus removal. Plant included headworks/sludge dewatering building, control/lab building, conversion of existing lagoon to flow equalization facility, SBR system, denitrification filters, UV disinfection, cascade post-aeration, aerobic sludge digesters, and chemical feed systems.

GANNETT FLEMING

COURTNEY ARENA, ENV SP

Permitting / Regulatory Compliance / Environmental

Years of Experience with Gannett Fleming:

3

Years of Experience with Other Firms:

21

Percentage of Time Dedicated to Contract:

40%

Education:

BS, Marine Biology, University of North Carolina at Wilmington, 1997

MS, Marine Biology, Nova Southeastern University, 2005

Registrations:

ENV SP: ISI - No. 52907

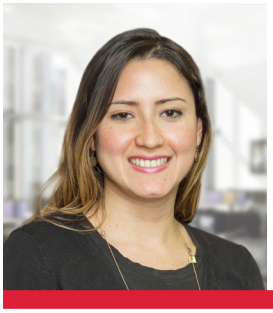
Located in West Palm Beach, Courtney is a Principal Environmental Scientist with 24 years of professional experience leading, managing, and executing a variety of environmental services for water resources, transportation infrastructure, and engineering projects. Courtney's water resources background and project experience includes working with the USACE, NRCS, and SFWMD. Her expertise extends to ecosystem restoration, protected species monitoring and regulatory permitting with federal, state, and local agencies.

Relevant Projects

Miami River-Miami Intermodal Center Capacity Improvement (MR-MICCI) Project, Miami, FL, *FDOT, District 4.* Deputy Project Manager and Senior Environmental Specialist for this engineering design and permitting project that provides an additional mainline track within the South Florida rail corridor from just north of the Hialeah Market Tri-Rail Station to the Tri-Rail Miami Airport Station within the Miami Intermodal Center. Responsible for managing the permitting tasks that include USACE Section 404 permit and 408 review, South Florida Water Management District right of way and environmental resources permits, EPA coordination for the Biscayne sole-source aquifer, and US Coast Guard coordination and permitting for the bridge over the Miami River.

General Engineering Consultant Services, Miami-Dade County, FL, *FDOT, District 6.* As a Senior Environmental Specialist, managing the comprehensive review of the full set of project development and environmental study documents including the state environmental impact report, the natural resources evaluation, the contamination screening evaluation report, the sociocultural effects evaluation report, the air quality screening technical memorandum, the water quality impact evaluation, and the Biscayne sole-source aquifer coordination with EPA. Also reviewed and provided comments on the environmental sections of the preliminary engineering report, draft request for proposal for construction, and the conceptual plans.

PGA Boulevard/S.R. 786 from S.R. 710 to the C-18 Canal, Palm Beach Gardens, FL, *FDOT, District 4.* Environmental Lead for a team of scientists and engineers who performed fieldwork, watershed modeling analysis, and supporting documents evaluating roadway improvements and associated effects to the Loxahatchee Slough Natural Area and the comprehensive Everglades restoration plan flow way. The study results supported the state and federal permitting process that would earn the FDOT mitigation credits and offset impacts associated with raising the roadway and a new bridge. Public and interagency coordination was a major component in accomplishing the goals of the project, which coupled roadway improvements and environmental restoration. This project won the 2018 ACEC-FL Outstanding Environmental Project Award.



GANNETT FLEMING

ISTER MORALES, PE, PMP

Risk and Resiliency

Years of Experience with Gannett Fleming:

6

Years of Experience with Other Firms:

8

Percentage of Time Dedicated to Contract:

30%

Education:

BS, Civil, Infrastructure and Environmental Engineering, George Mason University, 2010

MA, Transportation Policy, Operations and Logistics, George Mason University, 2015

Registrations:

Professional Engineer in VA

PMP: PMI - No. 3135959

Ister specializes in the assessment of extreme weather, climate resiliency, and project prioritization, supporting clients across the United States with their planning efforts. She excels in servicing providers to improve mobility, reliability, safety, and security in their infrastructure. She is also a transportation asset management specialist with specialized lifecycle engineering expertise.

Relevant Projects

Resiliency Task Order for On-Call Transportation Engineering Services, FL, *Broward Metropolitan Planning Organization.* Quality Manager for the Broward MPO's Transportation Resiliency Framework Study to develop a standard resilience analysis methodology, adaptation strategies toolbox, and a technical memorandum summarizing analysis method recommendations. This included defining short, medium, and long-term implementation actions for climate stressors, developing a memorandum of understanding (MOU) template for resiliency actions, and identifying potential funding sources. The methodology was applied at a high level to a proof-of-concept corridor.

Risk and Resiliency Assessments Round 3, Various Locations, VA, *Confidential Utility Client.* Assistant Project Manager supporting risk and resilience assessments for two community water systems, to comply with the America's Water Infrastructure Act. Assisted the client in meeting the EPA-imposed deadlines for Round 3 water systems serving populations from 3,301 to 49,999 people.

Federal Highway Administration – Asset Management, Extreme Weather and Proxy Indicators Pilot Project, Trenton, NJ, *New Jersey Department of Transportation.* Project Manager to assist in the development of a method that provides the capacity to link asset management, extreme weather, climate resiliency and project prioritization to reduce risks to New Jersey's highway system. The scope of the project was to integrate ongoing efforts on vulnerability and asset management practices to produce cost-effective mitigation strategies. Compiled and analyzed data to determine root causes and proxy indicators, areas of improvements, and possible projects to use as pilots for demonstrating New Jersey's resiliency efforts. Collaborated with internal and external stakeholders to share data for project study. Also provided oversight on the overall project tasks and structure of final report.

General Engineering Consultant Services, Monroe County, FL, *FDOT, District 6.* Project manager for the preparation of a request for proposal (RFP). Drafted the entire document for a risk and resilience study of U.S. Route 1 – Coastal Study for Monroe County. Coordinated with FL District 6 Environmental Manager to develop the scope of services and conducted early coordination review efforts with the District 6 stakeholders to incorporate their input. Developed a schedule, coordinated efforts between Gannett Fleming and the client, and provided QA/QC on the final draft SOS.

GANNETT FLEMING

VERNON SCOTT

Cost Estimating / Scheduling

Years of Experience with Gannett Fleming:

2

Years of Experience with Other Firms:

41

Percentage of Time Dedicated to Contract:

20%

Education:

Coursework towards degree, Architecture, West Valley College, 1981

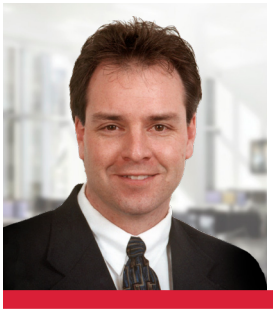
Vernon is a Senior Estimator with 43 years of experience developing preliminary and final construction cost estimates for various water, wastewater, highway, and bridge projects. He integrates the cost estimate with the project schedule to make sure that the estimate accurately reflects the cost of construction. His estimates account for project location, accessibility, available work and staging areas, work-hour restrictions, maintenance of rail and/or vehicular operations, phasing requirements, local wage rates, mobilization costs, perceived liability, similar construction volume in the area, and subcontracted work. Prior to Gannett Fleming, Scott provided estimation, monitoring, bid assistance, and construction phase services for numerous design-build projects in Florida for FDOT, with project values estimated at $50+ million.

Relevant Projects

Force Main Protection and Outfall Repair Alternatives Study, Lancaster, PA, *Suburban Lancaster Sewer Authority.* Senior Estimator responsible for the estimation for the project that addressed an existing streambank and outfall channel erosion problem. Our firm provided the conceptual design for the streambank and channel restoration, removal of the delta in the river, as well as evaluation of the root cause analysis of the gabion baskets failures. We completed multiple study and design phases in connection with infrastructure resilience.

Steeplechase and Kalmia Booster Pump Station Replacement Project, Moreno Valley, CA, *Eastern Municipal Water District.* Senior Estimator responsible for the estimation for the project, consisting of preliminary and final design services to replace the existing Steeplechase and Kalmia Booster Pump Station that serves the 2194 Dale Pressure Zone. The project scope of work includes hydraulic confirmation, site evaluation and selection, preliminary and final design, and bid-phases services. Four preliminary site alternatives have been identified by the Eastern Municipal Water District for the new pump station.

Asset Management Services. New York City, NY, *New York City Mayor's Office of Management and Budget.* Senior Estimator responsible for the estimation for this project that included providing asset management services to the New York City Mayor's Office of Management and Budget. Our firm is performing surveys of assets, uploading survey data and providing quality checks, updating and generating unit costs for construction and maintenance of assets, and providing written reports.



GANNETT FLEMING

BRIAN SHIFFLETT, RLA, LEED AP

Architecture / Landscape Architecture

Years of Experience with Gannett Fleming:

22

Years of Experience with Other Firms:

10

Percentage of Time Dedicated to Contract:

20%

Education:

BS, Landscape Architecture, The Pennsylvania State University, 1991

Registrations:

Registered Architect in Florida - No. LA6667041, PA, VA, NJ, NY, DE

USGBC - LEED 2.2 Accredited Professional

Brian has provided architecture and landscape design services on more than 135 assignments and has served as a Landscape Architect on more than 60 projects, including commercial, recreational, institutional, and mixed-use developments. He will use his experience to provide architectural and landscape design that effectively blends in with the surrounding area.

Relevant Projects

WWTP Expansion, Clark's Summit, PA, *Abington Regional Wastewater Authority.* Landscape Architect for the development of landscape plans and design of an entry sign and fountain structure. The overall landscape plan consisted of native vegetation and incorporated "green infrastructure" strategies into the site to enhance the environmental aspects of the site. Converting large areas of existing lawn to meadow-type areas and stabilizing lawn panels, grass swales, and bituminous reductions were all used to present a "green" face for the newly expanded facility.

Fort Pierce Service Plaza, Port St. Lucie, FL, *FDOT, Florida's Turnpike Enterprise.* Landscape Architect for the development of landscape and hardscape plans and sewer and water distribution systems for a redeveloped 54-acre rest area and service plaza along the Florida Turnpike. Key features of the new site included a new central walking spine with a colored concrete wave pattern, earth mounding to screen parking from the mainline roadway, a native plant palette to tie the entire plaza together, and traffic-calming features within the main parking areas. The water and sanitary systems were designed to serve both a new 65,000-square-foot main facility, which included restrooms, food vendors, and dining facilities, and a 3,500-square-foot convenience store with fueling stations. Both systems were designed to accommodate current demands and anticipated future expansion needs.

King Street Intermodal Facility Reconstruction, Alexandria, VA, *Washington Metropolitan Area Transit Authority.* Landscape Architect for the development of a comprehensive landscape and site amenities plan for a reconstructed intermodal facility. Plans were developed in accordance with city and owner guidelines, which provided several design restrictions. The final plan provided a greater mixture of vegetation, enhanced seasonal interest, and root zone capacities for proposed canopy trees when compared to the original site.

RPA Beddown Facility, Horsham Air Guard Station, Horsham, PA, *U.S. Property and Fiscal Office for Pennsylvania*. Landscape Architect preparing site development plans including stormwater upgrades and accessible building access areas for the proposed 29,000-square-foot, $7.25 million RPA Operations Center Beddown Facility.

TAB E. APPROACH TO SCOPE OF WORK

GANNETT FLEMING

TAB E. APPROACH TO SCOPE OF WORK

E.1 PROJECT UNDERSTANDING

The City of Hollywood Utilities Department has continued to provide uninterrupted and high-quality services to their residents, businesses, bulk volume customers, and visitors. Providing high level of service requires the City to continue to invest in O&M as well in new resilient and sustainable infrastructure to meet demand and the City's objectives as well as continue to support the local economy. The City, similar to other utilities in South Florida, is continuously challenged to adapt and resolve issues resulting from aging infrastructure, capacity increase, sea level rise, more recurrent and sever weather storms, regulatory drivers (i.e. ocean outfall legislation and lead cooper rule), cybersecurity, among others.

This Request for Qualifications (RFQ) for Infrastructure Projects related to water, sewer, reuse, and stormwater throughout the City of Hollywood will establish the team of engineers and professionals to help with the implementation of the City's CIP. The City has also included in the scope the intent to pursue Value Engineering and QA/QC Services to produce high-quality deliverables and/or identify opportunities for optimization or additional economic benefits. This RFQ's scope services will include studies, evaluations, conceptual design, preliminary design, final design, permitting, QA/QC review, value engineering, bidding, construction administration, construction management and other services necessary to implement the City's CIP.

We understand that ***infrastructure projects cannot be delivered in silos; these need to be planned in a holistic and collaborative approach*** with internal and external factors influencing the projects. These type of infrastructure have to incorporate not only the technical solutions, but also include consideration to funding sources, funding and regulatory compliance with deadlines and reporting requirements, alignment with concurrent projects with other agencies (i.e. FDOT, USACE, adjacent municipalities, etc.), and buy-in from the community. The City has a unique opportunity to tap into State grant funding, State Revolving Fund, and/or Infrastructure Investment and Job Act (IIJA) funding to support the implementation of the CIP. Given the list of projects in the RFQ, the City can incorporate hardening features, resilient approaches including those establish in the triple bottom line concepts and provide a solid justification with the benefit analyses required to secure grant funding. The following page highlights some of these important projects.

As your professional engineering consultant, Gannett Fleming is eager to support the City in implementing the projects in the CIP in an effective and innovative way given our team's experience with these types of opportunities and unique challenges.

POTENTIAL PROJECTS

- Asset Management related to Department of Public Utilities assets
- Grant application assistance and grant management
- Lead Copper Rule Revision Compliance
- Sewer Lift Station E-3 Upgrade $
- Sewer Lift Station E-6 Upgrade $
- Parallel Force Main to Taft Street Force Main (Depending on decision and planning as needed) $
- Force Main improvements in Emerald Hills area $
- Stormwater Pump Station Upgrade Program (up to 10 stormwater pump stations upgrade, in one project or multiple projects, depending on City's stormwater master plan recommendation, need and funding availability) $
- New Stormwater Pump Stations SW-11, SW-12, SW-13, SW-14, SW-15 (in one project or multiple projects, depending on City's stormwater master plan recommendation, need and funding availability) $
- Hollywood Lakes Neighborhood Exfiltration Improvements (including W/WW utilities in the same area) $
- Hollywood Lakes Neighborhood Exfiltration Improvements (including W/WW utilities in the same area) $
- Hollywood Hills Neighborhood Exfiltration Improvements (including W/WW utilities in the same area) $

$ Opportunity for Grant Funding Assistance

Figure E.1-1: Potential Infrastructure Projects and Opportunities. The City can incorporate innovative features and resilient approaches including those establish in the triple bottom line concepts and provide a solid justification with the benefit analyses required to secure grant funding.

To a lesser extent, the scope might include treatment plant projects; however, it is not anticipated that these will be part of this contract. We understand this contract represents only a portion of the CIP as the City regularly issues RFQs on specific projects in which the design is larger. We have assembled our team to align with the expertise and talent needed to execute these types of projects and support the Department of Public Utilities, Engineering Support Services Division (ESSD) team. An effective management plan begins with a thorough understanding of the systems and infrastructure in place and an understanding of the future needs for system expansion. Gannett Fleming is aware that the City of Hollywood is currently developing their Stormwater Master Plan to establish and prioritize the City's future infrastructure needs for projects throughout the system. As these Plans have not been approved, we intend to follow the progress of the various documents and review them for possible opportunities for innovative and cost-effective solutions.

Every project brings its own complexity and challenges, regardless of size. As your engineering consultant, Gannett Fleming will bring the experience and lessons learned from other projects to address issues with greenfield, replacement and rehabilitation projects. Issues such as space limitations, maintenance of operations during construction, conforming and adapting infrastructure to current building code standards, ever-changing regulatory drivers, and common sense hardening, among others. We understand that infrastructure projects must be designed with scalability and flexibility to accommodate future expansion needs. ***Our goal is to bring these experiences and lessons to the City to create a strong foundation that can support growth; thus, the City can meet immediate and future needs.***

Gannett Fleming's approach commits reliable and technically sound, responsive, focused, efficient services to the City, provided by knowledgeable, qualified staff.

E.2 APPROACH TO INFRASTRUCTURE PROJECTS

By partnering with the Gannett Fleming team, the City of Hollywood will work with a local, comprehensive, responsive team of professionals using proven methods to deliver your water, sewer, reuse, and stormwater projects, planning effectively and keeping the project objective as target. The approach for project delivery at different phases of the project life-cycle from planning to construction and asset management include similar planned, evaluated, designed, and implemented projects addressing aging infrastructure, capacity expansion, operational optimization, regulatory mandates, resiliency adaptation and provided innovative, practical, efficient, and operations-friendly solutions.

We understand that use of state and federal grant funding is a high priority for the City and consultants knowledgeable in the processes and approvals are needed to execute these types of projects. Our team has the experience and knowledge required to execute high quality, technically-sound state and federally funded projects that meet regulatory requirements on time and within budget.

Our project approach focuses on City requirements to provide high-level service to its water, wastewater, reclaimed water, and stormwater residents and customers. Our team has a culture of collaboration, commitment, and responsiveness when delivering professional engineering and design services. Our ability to fulfill budget, schedule, and quality requirements have been demonstrated with municipal and private clients across the United States. We are working with local and state agencies including the City of Doral, City of Miami, Broward County, FDOT, SFWMD, Miami Dade County, and others. This proven local project delivery provides Gannett Fleming with the necessary level of understanding of local conditions and interagency/government collaboration needed to be of benefit to the City.

Our project leadership brings fundamental understanding of the City's requirements and is a key factor of project success. Naldo Gonzalez, PE as project principal and Project Manager Keisha Westbrook, PE will guide the project team and apply demonstrated project delivery and understanding of the City's vision and objectives.

Backed by a team of experienced professionals, we are ready to serve the City for resolving complex challenges inherent in every project. Key considerations for project delivery can include a range of technical requirements, fiscal responsibility, climate adaptation and resiliency, technology and innovation, cybersecurity, and stakeholder requirements that are project specific. We have provided a brief summary of some of these key considerations on the following pages.

E.2.1 Horizontal Infrastructure Projects

The technical consideration in the design of water and reuse pipelines, sewer or stormwater transmission and conveyance include planning and distribution or conveyance system studies; hydraulic modeling and analyses; water quality modeling in distribution systems, pipe route alignment evaluations, detailed design; permitting; construction management and construction inspection; and asset management. Other specialties may include evaluation and design of pipelines using trenchless technologies. ***We have designed pipeline projects that have traversed almost every type of environment found in the eastern United States.*** They have involved the use of the common materials, including ductile iron, steel, prestressed concrete, PVC, HDPE, and FRP pipe. Functional design elements included supporting appurtenances from large isolation valves, air release and vacuum relief valves, drain valves, and surge control facilities. Typical design considerations for pipelines (pressurized and non pressurized) may include:

- Pipe material selection
- Subsurface materials, groundwater, and depth to rock
- Trench backfill materials and compaction
- Pipe thrust restraint – concrete reaction backing, joint restraint, and restraint anchors
- Geotechnical investigations
- Valves and valve vaults
- Alignment options to avoid interferences from underground structures and utilities

- Connection procedures and requirements including preinstalled thrust blocks, or specially-designed restraining configurations
- Connections to existing mains
- Special paving requirements
- Air release and air-vacuum relief facilities
- Blowoffs and drain facilities
- Specialty facilities-PRVs, electronic control valves, telemetry equipment
- Operating and test pressures
- Temporary and permanent pavement and shoulder restoration
- Traffic control
- Noise and dust control
- Soil erosion and sedimentation control plans
- Test pit investigations to determine horizontal and vertical location of critical underground facilities
- Location and separation from other underground utilities
- Hydraulic evaluations, pipe sizing, dead-end or low flow areas, and fire flow for potential water quality issues
- Hydraulic surge analyses
- Corrosion investigations and design of cathodic protection facilities
- Wetland preservation or mitigation
- Environmental issues
- Forest stand delineations and forest conservation permitting
- Federal, state, and local permit issues and requirements
- Construction cost estimates
- Construction schedule

E.2.2 Lift Station Projects

Gannett Fleming has designed more than 750 pumping stations ranging from 0.1 mgd to 395 mgd. Projects have involved designs for submersible, dry pit submersible, self-priming, ejector, package, conventional dry pit centrifugal wastewater pumping stations, and stations with series pumping. Most of these designs were combined with flow metering, standby power generating facilities, ventilation, odor control facilities, and alarm telemetry systems. Pump controls have included air bubbler, radar, encapsulated float, submersible transducer, or sonic detector wet well level monitoring devices; constant speed and variable speed drives using liquid rheostat, variable frequency, or eddy current clutch; and control logic from pump alternation to microprocessor based digital controllers. In addition, we are experienced in conducting structural evaluations of pumping stations. We will apply our experience and knowledge gained from similar projects to implement safe and properly-sequenced projects focused on operability, safety, and innovation.

Figure E.2-1: Crum Creek. Large scale physical model for Gannett Fleming's Crum Creek Pumping System.

Pumping Station Design with Hydraulic Institute (HI) Standards — Gannett Fleming incorporates the use of HI Standards into every pumping station we design. The purpose of these standards is to guide the design of pumping systems so that the design of the system meets the facility owner's expectations. The HI Standards also contain design recommendations for the overall design of the pumping station wet well. The extent of use of HI Standards is generally governed by the standards and preferences of the clients we serve. Other factors include the size and type of pumping station, site restraints, and budgetary limitations, especially with rehabilitation projects.

Pumping System — A pump performance curve will be obtained from the pump manufacturer for the existing pumps and our team will develop system curves representing the current operations. The curves will correspond to the

system conditions at the minimum and maximum expected wastewater surface elevations in the wet well through the force main discharge from the pumping station and into the downstream interceptor. The aviable suction head of the system and requirements of the current pumps against HI recommendations to eliminate potential cavitation. We will evaluate if the current pump impellers are performing as designed and if replacement of impellers are required.

Evaluation of Pipe Suction Velocities — We will evaluate the individual pipe sections against the current and proposed changes in pump capacity to determine if the pipe suction velocities are in the ranges recommended by HI standards.

Water Hammer Evaluation — The rapid changes that can occur in the velocity of flow in force mains and pressure pipe can be caused by pump startup, pump shutdown, or power failure, and can result in a considerable change in pressure. The extreme transient pressure and flow condition caused by water hammer can create performance issues on pumping system. Our team will evaluate the water hammer control systems to limit pressure changes in the force main within allowable ranges by minimizing the rate of change of velocity. The following control systems will be considered during the evaluation:

- Swing check valve with outside weight and level to assist closure
- Spring-loaded swing check valve
- Swing check valves with high-pressure relief valve Positively controlled valve
- Air and vacuum valves at high points along the force main

Wet Well Capacity and Design Considerations — The required wet well volume depends on the method of pump operation. We will coordinate with the pump motor manufacturer to confirm the allowable time between pump starts and evaluate the existing wet well is adequately sized. Usually, our rule of thumb is to keep two to ten starts per hour.

Odor Control — Gannett Fleming excels in advanced odor control measures so that your pump stations do not burden the communities they serve. We provide solutions capable of managing hydrogen sulfide loadings with more than 99% removal efficiency. When possible, we employ methods that neither use nor produce hazardous chemicals, safeguarding your equipment and protecting your operators. From biological trickling filters paired with secondary carbon scrubbers to ionization coupled with high velocity dispersion, our low-maintenance odor control solutions mitigate neighborhood impacts, paving the way for positive community relations.

Development of 3D CAD Model and BIM — By performing a 3D laser scan survey we will be able to prepare accurate 3D CAD models for the pumping station. A 3D laser scanner can collect millions of points-per-second to produce a very dense and accurate collection of individual measurements known as a "point cloud" with a positional accuracy of 6mm (0.24 inch). 3D scanning measures existing building interior features, including process mechanical, HVAC, electrical, plumbing, fire protection, pipe networks, structural features, and more.

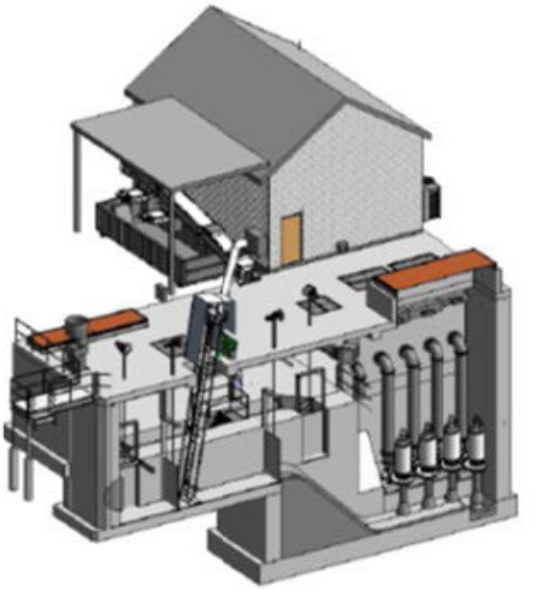


Figure E.2-2: Pump Station Rendering.

E.2.3 Traffic Control

Public roadways are frequently the site for utility lines and connections. Our staff is well-versed in local, state, and federal requirements for MOT and work zone safety. As a full-service engineering firm, Gannett Fleming regularly provides traffic control services in support of our municipal projects. We have performed many different types of transportation studies and designs for clients throughout Florida.

While an alternate pipeline route that runs along minor arterials or collector roads with less traffic may be longer and require more material, it could offset the higher cost, public disruption, and construction durations associated with complex MOT plans with multi-lane and full road closures and detours required for more direct pipeline routes within principal arterials or crossing major highways. Therefore, our MOT analysis will factor this into the selection of pipeline routes. After selecting a pipeline route and when preparing design plans, development of an effective MOT may consider the following:

- Minimum number of lanes to maintain open based on traffic volume
- Work Zone limits/lengths to construct the minimum length of pipe and staging
- Construction operations for pipe installation: cut and cover, directional bore, or micro-tunneling
- Adjacent utilities that may be impacted and require relocation
- Available streets for detour routes for roadway closures
- Hourly traffic volumes and classification (percent of truck) for lane closure analysis (hours of closure) and turning radii at intersections
- Impacts to existing signals at a major intersection
- Pedestrian and bicycle traffic to maintain accessibility
- Roadway features that may be affected and require temporary work: lighting, drainage, signing and markings
- Transit routes

E.2.4 Construction Estimating Method

Gannett Fleming has a team of estimators that will be using the Association for the Advancement of Cost Engineering International (AACE International) is an association specializing in total cost management and cost engineering. AACE has developed an estimate classification system that consists of five classes of estimates with cost accuracy improving as the level of design progresses. Class 5 is the lowest class used for basic screening or feasibility while Class 1 is a bid level estimate. They publish many recommended best practices that apply to the planning, estimating, and scheduling of a construction project. The Gannett Fleming team uses many of these best practices including:

- Required Skills for a Project Planning, Estimating, and Scheduling
- Basis of Estimate (documentation of assumptions and background data)
- Classification of Cost Estimates and Schedules
- Developing Activities, Durations, and Activity Logic
- Scheduling Claims Protection Methods
- Identifying the Critical Path
- Time Impact Analysis
- Recovery Scheduling
- Analyzing S-Curves
- Project Constructibility
- Planning for Adverse Weather
- Project Controls Plan
- Risk Assessment and Analysis
- Contingency Determination

E.3 PROJECT MANAGEMENT APPROACH

Our project management approach focuses on communication, partnership, and collaboration.

Foremost in achieving the City's goal is to provide the City with a dedicated local project manager. **Project Manager Keisha Westbrook, PE** will serve as a single point of contact throughout the duration of the project. An effective management plan begins with a thorough understanding of the systems and infrastructure in place and an understanding of the future needs for system expansion. Communicating expectations, fully understanding the scope of work details, identifying any potential limitations, and providing frequent updates all contribute to a project progressing smoothly, without issue, on time, and within budget. As the Project Manager, Keisha Westbrook works with Project Engineers to develop a PEP for each project. This plan is a living document that will help our team define and manage budgets, schedules, quality, risk, health and safety, and sustainability.

Gannett Fleming understands the importance of budget limitations for every project the City undertakes. To keep project costs within the available budget, expenditures of all types have to be kept under control from the beginning. We fully commit to the City to provide effective measures to help control and limit costs at all levels of the project. Controlling the design, budget, and schedule, our Project Engineers will use tools such as an Earned Value Analysis (EVA) to monitor the project budget on a weekly and monthly basis to maintain schedule and stay on budget. The EVA analysis is performed and reviewed monthly to evaluate actual work progress versus budget spent. Using an earned value analysis, will track and maintain the project's budget and schedule. The BST accounting software will provide the Project Manager team with accurate, weekly information on all charges for project tasks and subtasks.

Figure E.3-1. A Proven Approach. We will provide a clear management structure with defined roles, responsibilities, and lines of communication and reporting requirements so that budget, schedule, quality deliverables, and City expectations are met.

E.3.1 Integration of City of Hollywood Staff

While it is Gannett Fleming's goal to function as an extension of City staff, direct involvement with City staff is often necessary to meet all City standards and procedures. Gannett Fleming is accustomed to partnering with operations, maintenance, and management staff to execute successful projects. We will engage with the City staff through formal or adhoc type of meeting while maintaining the City's PM engaged on these communications. Ad hoc type meetings, which can be scheduled at any time, will be documented in minutes, and shared for added communication benefit. On larger task orders, Gannett Fleming often invites City staff to participate in internal kick-off and technical review committee meetings to provide a hands-on understanding of project elements and provide unfiltered commentary on City preferences and requirements.

Emphasis on City involvement will be given to projects that require public meetings. The tone and conduct of such meetings directly reflect the attitude and reputation of the City. Public meetings can be successful if City staff provide direction and take an active approach in determining the meeting's content.

E.4 WORK ORDER APPROACH

The following steps will be taken to properly execute each work order from initiation to completion:

E.4.1 Phase 1 Project Initiation

The primary tool of project management approach is the PEP. This is a comprehensive project planning tool that will assist the Project Manager and team to align project objectives. On receiving Notice to Proceed (NTP), Keisha will develop a PEP outlining the project, including detailing staff assignments, schedules and milestones, budgets by task and manpower hours, deliverables (such as the status of project with tracking and reports), change request procedures, coordination and communication procedures, quality management plan, review requirements, responsibilities and accountability for team members, performance measures, risk profile, safety plan, invoice procedures, and other project details. The PEP is a live document that will be updated as new assignments are added or throughout the project execution to capture directives.

Work Order Planning - Proper planning and organization in advance of starting work on the project is critical to its success. On NTP of the contract and a defined Scope of Work, we will submit and maintain a task oriented, network-based, computerized plan for completing this project. This plan includes, but is not limited to:

- Develop and lay out a Work Breakdown Structure (WBS) for tasks and submittal to the City for review and approval
- Develop an activity network and submittal of the network to the City for review and approval
- Provide the City with a comprehensive schedule up front so that the task order and project is delivered on schedule.

Schedule - Due to the nature of task order base, the schedule will depend on the size of the project and the level of complexity. All multiple assignments shall have independent schedules, filing systems, and progress reporting.

E.4.2 Phase 2 Project Execution

Following Phase 1 activities, we will assign clear responsibilities and accountabilities to our team members, including our subconsultants, and hold ourselves accountable for successful delivery of all project aspects.

A work management platform, such as MS Teams site, will be used for centralized communication, collaboration, and project details into one intuitive space, so that our team can always see at a glance how much progress the team has been made, what the next best steps are, and what risks that we need to remediate. Proposed work orders may be structure as follow:

Task Kick-off Meeting

On receipt of NTP, our key personnel will hold an in-house project initiation, or "kickoff" meeting to update our PEP. The PEP assigns staff to complete the task within the approved schedule and budget and give our task managers and staff direction in completing the assignment on time and within budget. We will also determine the existence of any specific requirements or unique aspects of the work. The PEP will be distributed to all key staff for their reference and guidance.

Depending on the type of project assignment, the following execution activities can be adapted to the project needs.

Data Gathering and Analysis

This subtask The Gannett Fleming team will review the as-builts of existing piping alignments to identify potential utility conflicts with the proposed improvements. We will evaluate potential conflict and, when required, the necessary SUE services for underground utility locations will be performed. We will perform topographical survey when data is not readily available in the areas of interest, condition assessment inspections, reality capture, and geotechnical investigations will be performed if the project requires it.

Schematic/Conceptual Design

Schematic/conceptual designs will establish the design criteria for major disciplines, such as civil, structural, process mechanical, electrical, and I&C, as applicable. We will evaluate several alternatives for the improvements of the water distribution and will recommend the alternative that best satisfies the City's requirements with fiscal responsibility for costs considerations as well as environmental impact (if required) for selection. The design criteria and/or preferred engineering solution will be agreed on with the City in a decision meeting for the discussion of the preliminary design memorandum. This memorandum will be the base for the development of the design drawings.

Detail Design Development (30%, 60%, 90%, Bid Ready)

The design will progress from preliminary design, intermediate and final stages, each progressing on the previous level of detail, and addressing previous design review comments received from the City Project Manager or designee. The work during this stage will focus on the development of design drawings and technical specification conforming the contract documents. Formal reviews will be conducted for the contract documents at all milestone completion levels.

At the progress review meetings, Keisha will update the City's Project Manager on work in progress. Key team members will attend the progress review meetings as appropriate. In addition to progress review meetings, we will establish meetings to coincide with key completion milestones to facilitate work product review and monitor both quantitative and qualitative progress. Our team will review design comments internally and then meet with the City to review 30%, 60%, 90% design drawing and discuss and resolve comments. The design documents submitted at the 90% level will be complete pending final QA/QC review and comments from potential permitting agencies. City and permitting comments will be incorporated prior to issuing the Bid Document. We will develop an Opinion of Probable Construction Cost at each design stage, if required, as well as a construction sequencing schedule to efficiently plan the construction ac

Design Workshop

For larger, more complex task orders, Gannett Fleming may be requested to facilitate a workshop, conducted early during project implementation to keep the focus of the design in line with all project participants. Informal facilitated meetings will encourage inhibitions in communication to be put aside. They maximize input from all parties, as participants feel more comfortable. Through greater communication, interpretations will be confirmed and clarified, which will promote understanding and consensus. Such informal workshops will allow participants to better define the scope of work and provide all parties with a clear understanding of the assignment.

Design Reviews

Design reviews will occur at City-designated intervals, until a 100% complete, bid ready design is achieved. Addressing comments from multiple review agencies often places a consultant in the unenviable position of trying to resolve comments that may be contradictory in nature. To resolve this, we have developed procedures that direct our managers/engineers to consolidate the comments into a list of contradictory or confusing comments that require further direction.

We will forward the list to the City prior to the design review meeting so that the meeting is focused on issues, rather than reviewing each comment that was made. We have found that face-to-face design reviews facilitate an open discussion of the review comments and typically guarantee solutions that are acceptable to everyone.

Our management approach for this contract emphasizes clear lines of communication, up-front definition of roles and responsibilities, responsive and quick resolutions to any concerns, a framework for tracking progress, and a defined system of quality control.

Deliverables

Depending on the assignment, we may undertake a preliminary design phase to review alignment alternatives and refine the project's actual extent. We will summarize the results of such preliminary evaluations along with the criteria, cost estimates, preliminary drawings, and constructability considerations, and calculations in a preliminary design memorandum. The memorandum will be submitted to the City for review, and following resolution of City comments, we will begin final design. Final design reviews will occur at specific development intervals, until a 100% complete design is achieved. Gannett Fleming anticipates assisting the City with bid advertisement, award, and post-award engineering services.

Design Quality Reviews

Gannett Fleming is an ISO 9001:2015 certified design professional firm, thus, all deliverables will be subjected to quality reviews so that they meet the City's recommendations, scope, intent, and quality objectives and the project complies with accepted design practice, regulations, and the City's current engineering guidance documents and standards.

Regulatory Compliance and Permitting

Gannett Fleming has history of delivering projects in Florida for more than 60 years, which has allowed us to gain a comprehensive understanding of local and state permitting processes and regulatory requirements for infrastructure projects. Our team has obtained approvals from state regulatory agencies, including FDEP, SFWMD, FDOT permits. Additionally, our team has completed and obtained approval for multiple permitting processes with different municipalities and agencies, including Broward County Health Department, Broward County Environmental Protection and Growth Management, Environmental Engineering and Permitting Division for W/WW projects and stormwater infrastructure projects.

Over the years, our team has also gained experience collaborating with regulatory agencies providing credible relationships with regulators to meet successful permitting outcomes. The goal of the permitting process is to prevent impacts to the project schedule and comply with existing regulations and prevent impacts to the project schedule. Our unparalleled experience with permitting processes and requirements, and great relationships with the agencies help to avoid unnecessary permitting delays.

The Gannett Fleming team has successfully secured various permits from SFWMD, including the Environmental Resource Permit (ERP) for stormwater improvements, and ROW Occupancy Permit for improvements within the SFWMD canal ROW.

Bidding Assistance

The Gannett Fleming team will assist the City with the bidding process by preparing bid packages, attending the pre-bid meeting, responding to RFIs generated by prospective Contractors, preparing addenda, and ultimately by preparing a conformed set of documents that reflect modifications as a result of addenda and bid contractor selection. The Gannett Fleming team will be ready to provide technical compliance review of bid submittals and prepare engineer's Bid Award recommendation should this be required.

Engineering Services During Construction

Our experienced construction management team will collaborate with City staff to navigate the potential construction phase challenges to the surrounding business continuity, potential public safety concerns, maintain the City's environmental stewardship, and responsibilities to your residents and the community. During the construction phase of the project, the Gannett Fleming team would provide support to the City by answering RFIs, reviewing submittals, and participating in the construction progress meetings so that the construction of the project is following the design intent. During project closeout, as-built drawings will be prepared with the information provided by the contractor and on-site inspector.

E.4.3 Phase 3 Monitoring and Control

Project controls and monitoring is a key activity for ensuring the project is being executed according to plan. The Project Manager will collect, measure, and disseminate project performance information, and assess measures and trends to forecast potential items requiring corrective action. This includes monitoring project risks and ensuring they are being managed according to the project's scope of work, schedule, and risk profile. Gannett Fleming has established a Project Management Office (PMO) to provide project management oversight and guidance to all project managers and establish consistency for implementing earned value analysis, risk, and schedule management.

E.4.3 Phase 4 Project Closing

Project closeout is one of the most important phases of project delivery. A clear and defined closeout plan will be in place and procedures identified to allow our team to close out the project efficiently following project scope or if in construction phase follow the technical specifications.

Our team will verify project documents are transferred to the City's document control for work processes, including daily work reports, RFIs, field orders, change orders, pay items, schedule updates, safety report, photos, and as-builts. These files are properly titled and sorted within the document control system's requirement, simplifying the delivery process. At project closeout the relevant project files will be rolled up and delivered to the City along with original construction drawings and specifications, final project financial accounting reports including schedule of asset data.

At the closing phase of the project, we will provide lessons learned and other project insights to the City as a part of knowledge transfer procedures. From the project management tasks, final invoices are submitted with the proper closeout documentation. A consultant final performance evaluation is requested to provide feedback on performance of the team and overall project client satisfaction.

E.5 CURRENT WORKLOAD / CONTRACT AVAILABILITY

Gannett Fleming monitors and forecasts staffing availability to appropriately resource and commits the right personnel to the projects we undertake, from kickoff to construction conclusion. Knowing our staff's availability allows us to accurately develop schedules for successful project delivery. We have assembled our team of professionals based on their expertise in water and sewer pipelines, pump station design and rehabilitation, and W/WW treatment as well as their availability for the duration of the Water, Sewer, Reuse and Stormwater Infrastructure contract. The individuals assigned to this project will be available full-time, when required, to fulfill their tasks and schedule commitments.

We forecast workload monthly and adjust resource allocation accordingly. Our project team can efficiently execute this project. For each project, we will propose a schedule to complete the scope of work that considers anticipated major activities, milestones, approvals, and resources required for successful delivery. The construction schedule will be aligned with the contractor's proposed schedule to meet critical milestones. Integrating our current and projected workload and the anticipated schedule for this contract, our team can meet and sustain the necessary assignments to deliver this project from design through construction completion.

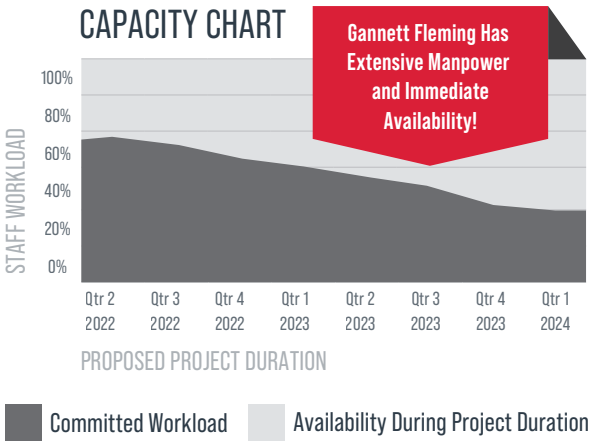


Figure E.5-1: Team Capacity. Gannett Fleming and our team of subconsultants have the capacity and availability to respond to task orders under this contract.

E.6 ABILITY TO SOLVE COMPLEX PROJECT ISSUES

E.6.1 SLR Adaptation Design Considerations

South Florida is front and center on the effects of sea level rise and its effects in all types of infrastructure projects. Currently South Florida, including the City of Hollywood, is dealing with saltwater intrusion threatening our ground water sources. SLR also affects the life span of underground infrastructure and can attribute to increase in infiltration into sanitary sewer systems, thus affecting the capacity in the sewer system. SLR also impacts the ability for continuing or to maintain or provide adequate stormwater management and drainage of our local neighborhoods roadways in particular low laying areas into the future.

These issues will exacerbate the need for resilient infrastructure to continue to provide the level of service for South Florida residents and the City will have to incorporate infrastructure solutions to mitigate some impacts at the local level of responsibility. We understand that the solution is not for the City alone to tackle, but that the adaptation of these challenges will have to be in collaboration with agencies such as SFWMD, USACE, FEMA, FDOT, and other stakeholders. We are already working with local and State agencies on identifying and implementing infrastructure to mitigate future conditions.

For the Miami Dade DTPW, the team is designing the Lake Belmar Stormwater pump station within a coastal neighborhood in North Miami to provide pumping capacity to alleviate current and future stormwater runoff. We are taking into consideration pre-treatment measures to mitigate nutrient loading into Biscayne Bay, providing a less intrusive deign to be aesthetically in line with its surroundings, incorporate by design hardening materials and increase elevation to protect electrical and I&C equipment. We are coordinating with Florida Power & Light (FPL) and DTPW closely to maintain facility function and meet O&M requirements. The site also presents challenges due to the constraint space where this facility will be located.

E.6.2 Construction Considerations

Gannett Fleming has supported clients with solving varying infrastructure issues, such as aging facilities, pump and motor problems, or surge and water hammer effects, space constraints, code compliance, regulatory drivers, transited corridors, and others. Other constraints we addressed or advised our clients on were related to operations, funding, the need for optimization and energy savings, and workforce issues. Our team has designed new pump stations and rehabilitated existing facilities where we had to select pumping configurations to match technical requirements while also adhering to site limitations within residential areas. The definition of success of a project is not limited to construction completion. It is also defined by seamless construction execution so that residents or businesses in the surrounding area aren't adversely impacted. We work with clients to add special conditions to contract documents for documenting, tracking, reporting, and closing third-party impacts. This included audiovisual documentations and surveying existing conditions, controlling vibration and monitoring settling throughout construction, and providing final clearance. Whether constructing new pipelines or building sewer or stormwater pump stations, our team is ready to apply sustainable solutions to meet the City's infrastructure challenges today and prepare your community for the future.

E.7 AVAILABLE RESOURCES AND TECHNOLOGY

E.7.1 InfoWater/InfoSWMM

Gannett Fleming has comprehensive experience with industry-standard computer software for modeling distribution systems, transmission systems, gravity sewers, stormwater and drainage systems. We currently hold full suite licenses for multiple modeling software including Innovyze (an Autodesk company) InfoSWMM, InfoWorks CS, InfoWater and others. The selection of the modeling tool will depend on project requirements and/or our client preferences.

For water distribution modeling and management, we have used InfoWater modeling software, which is fully integrated with the Esri ArcGIS® platform. InfoWater can be used to perform comprehensive hydraulic analyses for effective, economical selection and sizing of water distribution piping and appurtenances, achieve adequate pressure and flow in the system, and fire flow protection requirements.

Similar projects where we have applied InfoWater modeling for evaluation, prioritization, and validation of design requirements include Allentown Division System Water Main Replacement for LCA, where our team managed and designed approximately 20 miles of water main replacement of unlined cast iron pipe over a period 8 years.

Other projects include Virginia American Water's Alexandria and Hopewell District Water Main Replacement where InfoWater was used to determine water main sizes and fire flow coverage and capacity evaluations.

Additionally, our team has in-depth experience using InfoSWMM modeling tool for evaluating backflow, surcharge, and overflow analysis for determining performance of sanitary sewer systems. Additionally InfoSWMM is a powerful modeling tool for evaluating drainage systems providing analysis for the planning and management of stormwater networks.

E.7.2 CFD Modeling

With a comprehensive, expert-level understanding of hydraulics, Gannett Fleming's experienced and talented hydraulic engineers are problem-solvers, using advanced and highly-detailed 3D CFD models to perform analyses leading to a more thorough understanding of the hydraulics and designs, resulting in significant cost savings to our clients. Additionally, we have a successful history teaming with a hydraulics laboratories that aid in our pump station designs by providing physical models to better determine project elements that may affect pump performance, allowing us to provide recommendations for design revisions that could potentially provide cost savings and improve operations for our clients.

E.7.3 Stormwater Modeling

Gannett Fleming team has vast experience in the analysis and design of stormwater systems for different types of roadway and infrastructure projects. They use several stormwater analysis programs, including Geo-Hec-Ras, ASAD, Arc-GIS, Mike-She, Mike-11, XPSWMM, and ICPR V4 1D/2D with the capabilities of ArcGIS integration to provide a more thorough analysis and design.

E.7.4 BIM Integration

Each design project that requires the preparation of drawings will be assigned a CAD/BIM coordinator responsible for setting up the design production requirements. The CAD coordinator will prepare a Project Information Management

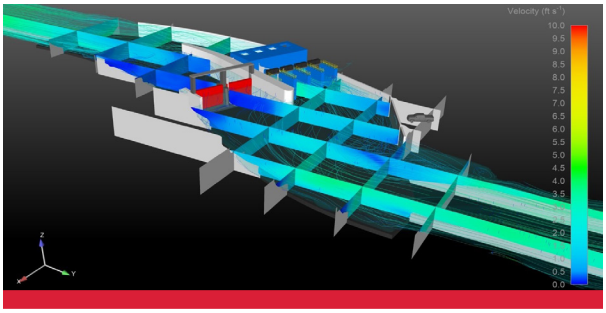


Figure E.7-1. CFD Modeling for S-27. CFD modeling was completed to evaluate projected velocity profiles for the interaction between the pump station, canal and gate operations. More than 12 scenarios were set and more than 100 simulations were run for existing and design conditions.

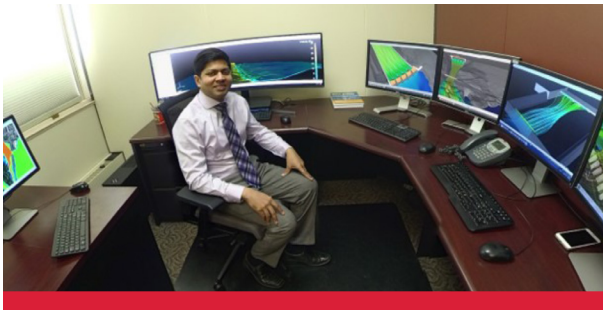


Figure E.7-2. CFD and Physical Modeling for S-356E. Gannett Fleming is providing CFD and physical modeling of USACE's S-356E pumping station and S-334E gated spillway. This facility is in the planning phase and will move forward through design in future phases.

Figure E.7-3: DELCORA PS-6. Gannett Fleming served as engineer of record for this project and designed PS-6 using BIM/Revit software to replace the existing EPS-1 and to provide a pumping station with the required 28 mgd capacity influent from the collection system to meet Consent Decree Revit Design for Defense Distribution stipulations.

Plan delineating design execution based on the platform used. The CAD/BIM coordinator is also responsible for managing access, attributes, and updates of the Autodesk Collaborate Pro collaboration platform. We have extensive experience working with Autodesk and serve as a technical advisor to their Water Advisory Council for industry guidance and leadership. The Gannett Fleming team has members in the Autodesk Expert Elite program, where users are recognized for their contributions to the software community and provide instructors to Autodesk University. Our engineering technology division support every design team to from planning, setup and execution of BIM models in Autodesk platforms.

For the City of Hollywood, we proposed design platforms including Revit, Inventor, AutoCAD Plant 3D, Civil 3D, AutoCAD MEP, Autodesk BIM 360 online tools, providing realistic representations of a project at each stage of project and encouraging innovation and collaboration throughout its lifecycle. We will continue to comply with your deliverable requirements in the AutoCAD format anticipated by the City. These design tools are standard to produce efficient pavement, pipeline, lift stations or other facilities.

E.7.5 Geographical Information Systems (GIS)

Gannett Fleming is an Esri® Release Ready Platinum Partner and has experience implementing in-depth location analytics, utility network, and adding robust asset management systems can dramatically increase the value of your operations. For utility projects, we use Esri's ArcGIS Utility Network is a GIS for water distribution system that displays all components that make up your utility in a detailed yet simple-to-understand interactive visual. For water distribution systems, these components would include mains, valves, pressure zones, fittings, and other field assets. The ArcGIS Utility Network also allows to build real-world behavior into the features you model. It can take complex structures such as pump stations and backflow systems and show them as a single unit, or it can open them up to view all the detailed assets within.

E.7.6 Notify

GeoDecisions, Gannett Fleming's geospatial division, has decades of experience developing innovative solutions for local, state, federal, and private clients. One of the premier products GeoDecisions has developed, Notify, was built initially for the W/WW industry. Notify is an advanced, high-speed alert notification system designed to deliver mass voice, text, and email messages to utilities, businesses, communities, and schools within minutes. It is flexible enough to be used as the primary customer and employee communications platform for your organization. This web-based solution leverages your organization's existing customers, employees, and GIS mapping information to distribute critical information during an emergency quickly and securely. Combining Notify and Utility Network allows users to identify or isolate the clients impacted by a water main break or other issue. Notify will send text, email, or voice messages within minutes to these clients to provide additional information or directions. In addition to Notify, GeoDecisions has developed several other custom applications and products including field collection tools, dashboards, a vehicle tracking application (Track) and GeoPlan.

E.7.7 Cybersecurity

Gannett Fleming's Security and Safety business line was founded in 2005 to serve all of the critical infrastructure markets that Gannett Fleming support. From a staff of two to now more than 30 professional security and safety personnel, our team's vision is to be a driving force in improving the security, safety, emergency preparedness and resiliency of our clients, communities, and their supporting infrastructure. We conduct cybersecurity assessments of clients' operation technology infrastructure according to the National Institute of Science and Technology (NIST) Risk Management Framework (RMF) and Cybersecurity Framework (CSF), AWWA Cybersecurity Assessment Guidance and Tool. We can provide a detailed understanding of the City's compliance to W/WW industry standards for cybersecurity, and help streamline their system so that it remains consistent, repeatable, and defendable, allowing the City to be confident in understanding the cybersecurity risks to the W/WW system.

E.7.8 CIVA

Gannett Fleming recently developed a virtual assistant that will transform how our team performs field inspections, project closeout, asset capture, and condition assessment services. CIVA will help us perform walk-throughs effectively and efficiently and will organize and streamline project notes. The development of this technology exemplifies Gannett Fleming's commitment to providing innovative, timely, and cost-effective solutions for our clients. Our Construction Services group are front runners in implementing technological devices on construction projects with the goal of increasing efficiency, decreasing errors, minimizing safety risk, and reducing cost to the owner.

E.7.9 Drone Evaluation and Inspection

Gannett Fleming has implemented drone technology on almost 100 projects, helping us to minimize inspection hours. We are using drones on some of our on-going projects with FDOT in South Florida. Drones can inspect areas with difficult access and conduct vertical inspection where there are safety concerns. We also use drones with LiDAR technology to track field quantities, conduct land surveys, and collect data for as-built and post-construction asset management programs.

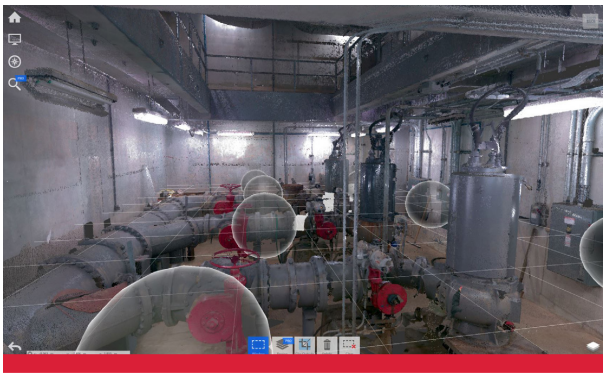


Figure E.7-4: Virtual Reality as Design Tool. VR technology was used for an existing pump station to mitigate risks through the design phase.

E.7.10 Virtual Reality and Augmented Reality

Virtual and augmented reality is integral to some of our major construction projects. We recently implemented VR technology on a large facility project in northern Virginia, where we performed constructability reviews during design. The owner/operators were able to tour the facility in VR, which allowed them to identify potential conflicts with equipment operability. We have also been piloting augmented reality hardware on our design and construction projects. Our field inspectors use iPad cameras to capture a composite view of the real word overlaid with the 2D or 3xD design, which helps them quickly identify work that is out of compliance and/or admissible for punchlist development. Our inspectors are equipped with tablets that can support BIM 360 models, and the 3D views allow both the inspector and contractor to easily identify and articulate potential conflicts with the designers.

E.7.11 360 Cameras and Time-Lapsed Videos

Using 360 cameras on linear projects to document site conditions during preconstruction surveys allows us to thoroughly evaluate site conditions and provide accurate data for claim reviews. 360 scanners on facility projects (with unavailable as-builts) document dimensions and proximity of objects to create accurate as-built conditions. Data is more readily available with time-lapsed videos when compared to tracking daily work reports, which helps us efficiently track contractors' down time during claim and change-orders evaluation associated with time extension request.

E.8 APPROACH TO MANAGING AND EXECUTING COST AND SCHEDULE

Cost monitoring and control are critical components of the Gannett Fleming management plan. Standard cost accounting procedures provide our project managers with real-time data to monitor project costs and keep the work within budget. Deficiencies are noted in a timely manner to allow corrective action. Task Leads typically break down or monitor work tasks in 80-hour or less increments and have engineering, technicians, and CADD personnel track their hours. This gives Task Leads, Project Engineers, and the Project Manager quick data on project progress and if adjustments must be made.

For each task we are assigned, our team will prepare and submit for review and approval, a project management control schedule, in Gantt Chart format, using MS Project software which will incorporate all the work elements defined in the negotiated contract documents. The draft schedule will include all tasks and milestones necessary to provide an approved Bid-Ready Package, including the necessary permits, by the date to be specified by the City. We will submit the schedule to the City's Project Manager promptly on NTP. The schedule will be maintained on interactive eBuilder Microsoft Project Scheduler. Allowances for City review will also be included as determined in final contract negotiations.

E.8.1 Respond Quickly to Task Assignments

Smaller task order assignments must often be addressed quickly and efficiently—particularly when they are in response to emergency or urgent requests. This is not an uncommon occurrence for us. Our clients often use us as an extension of staff, and clients also use us for urgent needs. Several considerations and processes are involved when initiating and executing these tasks:

- The task is initiated with a simple purchase order type of contract.
- On some task order agreements, we include contingency "un-opened" tasks to be used to address urgent tasks without the need for additional paperwork. Owner risk is minimal because these tasks are typically of short duration where little budget can be expended.

E.8.2 Ability to Complete Tasks on Accelerated Schedules

Gannett Fleming can reach hundreds of employees with water utility experience at all levels: from planning to CAD design details. Our task leads, with decades of municipal water utility experience, have experience with tasks requiring accelerated schedules. Our schedule tracking process allows us to evaluate whether we are performing on time and if we need to make any adjustments to rectify any instances when we are not meeting schedule requirements. Additionally, if warranted and feasible, we can embed staff in the City. This will reduce costs, improve communications and accessibility, and truly extend your staff.

E.9 APPROACH TO SCALABILITY

Our staff has become quite adept at understanding and implementing multiple concurrent projects while meeting each client's unique needs. We typically structure our continuing service contract teams to include several task leads so that we can undertake multiple task orders concurrently. We are extraordinarily successful in serving our many and varied clients through this method of service delivery by bringing leadership and comprehensive resources to each assignment. We understand the significant coordination needed on these types of contracts with the various entities and key stakeholders. Our knowledge and understanding will guide our design and construction approach to achieve clear and effective coordination and gain support from all affected parties to enhance the likelihood of a successful project outcome that meets the program schedule.

So that we can effectively manage and complete multiple concurrent task orders, Gannett Fleming will identify Task Leads for each assigned work order. These individuals can use any of the support staff to perform services under each task order assignment. We can also provide efficiency during task order execution. On previous similar contracts, we have minimized project start-up time by assigning similar task managers, discussing several task orders at one kick-off or progress meeting, and using experienced team members with similar project knowledge and experience. We adjust to our client's needs to meet budget, schedule, and regulatory requirements for each task order.

TAB F. KNOWLEDGE OF SITE AND LOCAL CONDITIONS

Not Applicable per Q&A on OpenGov

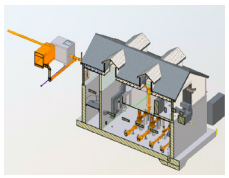
GANNETT FLEMING

TAB G. REFERENCES

GANNETT FLEMING

TAB G. REFERENCES

Master Services Agreement for Water/Wastewater Projects
Kristina McGee, Director of Engineering
Virginia America Water
703.706.3879



Ferebee and Park Avenue Pump Stations Replacement and Rehabilitation
Jeffrey Layne, Chief of Design and Construction - North Shore
Hampton Roads Sanitation District
757.460.4243

Wastewater System Priority Projects
Virginia Walsh, Chief Hydrogeology Section
Miami-Dade Water and Sewer Department
786.552.8266

Vendor Reference Forms for these listed projects can be found on the following pages.

SR 5/ US 1/ N. Federal Highway from SR 824/Pembroke Road to SR 822/ Sheridan Street
Bing Wang, PE - Project Manager
FDOT
954.777.4406

We have also included a recent Client Evaluation Form from FDOT for consideration.

VENDOR REFERENCE FORM

City of Hollywood Solicitation #: RFQ-042-23-JJ
Reference for: Gannett Fleming, Inc .

Organization/Firm Name providing reference: Virginia American Water
Organization/Firm Contact Name: Kristina McGee
Title: Director of Engineering
Email: Kristina.McGee@amwater.com
Phone: 703-706-3879
Name of Referenced Project: Master Service Agreement for Water/Wastewater Projects
Contract No: Master Agreement 16572 dated 1/1/20
Date Services were provided: Ongoing (estimated completion December 2023)
Project Amount: $2.2M

Referenced Vendor's role in Project: ☑ **Prime Vendor** ☐ **Subcontractor/ Subconsultant**

Would you use the Vendor again? ☒ **Yes** ☐ **No. Please specify in additional comments**

Description of services provided by Vendor (provide additional sheet if necessary):
Gannett Fleming provided design services, including supervising subconsultants for surveying, geotechnical engineering, and utility location, for water main replacement design in Alexandria, Prince William, Fort Lee, and Hopewell Districts.

Please rate your experience with the Vendor	**Need Improvement**	**Satisfactory**	**Excellent**	**Not Applicable**
Vendor's Quality of Service				
a. Responsive	☐	☐	☒	☐
b. Accuracy	☐	☐	☒	☐
c. Deliverables	☐	☐	☒	☐
Vendor's Organization:				
a. Staff expertise	☐	☐	☒	☐
b. Professionalism	☐	☐	☒	☐
c. Staff turnover	☐	☒	☐	☐
Timeliness/Cost Control of:				
a. Project	☐	☐	☒	☐
b. Deliverables	☐	☐	☒	☐

Additional Comments (provide additional sheet if necessary):
Gannett Fleming is a critical and vital team member for Virginia American Water with regard to delivering our capital program.

******THIS SECTION FOR CITY USE ONLY******						
Verified via:	**Email:**	☐	**Verbal:**	☐	**Mail:**	☐
Verified by:	**Name:**				**Title:**	
	Department:				**Date:**	

VENDOR REFERENCE FORM

City of Hollywood Solicitation #: RFQ-042-23-JJ
Reference for: Gannett Fleming, Inc .

Organization/Firm Name providing reference: Hampton Roads Sanitation District
Organization/Firm Contact Name: Jeffrey Layne
Title: Chief of Design and Construction - North Shore
Email: jlayne@hrsd.com
Phone: 757-460-4243
Name of Referenced Project: Ferebee and Park Avenue Pump Stations Replacement and Rehabilitation
Contract No: CIP VP014010, 014022, 014021, 018000
Date Services were provided: Ongoing (estimated completion May 2025)
Project Amount: $7M

Referenced Vendor's role in Project: ☑ **Prime Vendor** ☐ **Subcontractor/ Subconsultant**

Would you use the Vendor again? ☒ **Yes** ☐ **No. Please specify in additional comments**

Description of services provided by Vendor (provide additional sheet if necessary):
Gannett Fleming is providing professional consulting services to the Hampton Roads Sanitation District for the Ferebee Avenue and the Park Avenue Pump Stations Replacement Sanitary Sewer project. Our firm is providing preliminary engineering report services, design services, pre-construction services, contract administration services, field engineering and inspection services, startup and testing services, and training services.

Please rate your experience with the Vendor	**Need Improvement**	**Satisfactory**	**Excellent**	**Not Applicable**
Vendor's Quality of Service				
a. Responsive	☐	☐	☒	☐
b. Accuracy	☐	☐	☒	☐
c. Deliverables	☐	☐	☒	☐
Vendor's Organization:				
a. Staff expertise	☐	☐	☒	☐
b. Professionalism	☐	☐	☒	☐
c. Staff turnover	☐	☐	☒	☐
Timeliness/Cost Control of:				
a. Project	☐	☒	☐	☐
b. Deliverables	☐	☒	☐	☐

Additional Comments (provide additional sheet if necessary):
Good firm with good people!

******THIS SECTION FOR CITY USE ONLY******						
Verified via:	**Email:**	☐	**Verbal:**	☐	**Mail:**	☐
Verified by:	**Name:**				**Title:**	
	Department:				**Date:**	

VENDOR REFERENCE FORM

City of Hollywood Solicitation #: RFQ-042-23-JJ
Reference for: Gannett Fleming, Inc .

Organization/Firm Name providing reference: Miami-Dade Water and Sewer Department
Organization/Firm Contact Name: Virginia Walsh, PhD, PG
Title: Chief Hydrogeology Section
Email: virginia.walsh@miamidade.gov
Phone: 786-552-8266
Name of Referenced Project: OOL SDWWTP Deep Injection Well & Facilities
Contract No:
Date Services were provided: Ongoing (estimated completion October 2023)
Project Amount: $4M

Referenced Vendor's role in Project: ☐ **Prime Vendor** ☒ **Subcontractor/ Subconsultant**

Would you use the Vendor again? ☒ **Yes** ☐ **No. Please specify in additional comments**

Description of services provided by Vendor (provide additional sheet if necessary):
Provide professional engineering services under the Ocean Outfall Legislation for the implementation of the deep injection wells and monitoring well including construction oversight and reporting on an as needed basis as authorized by CH2M Hill, Inc. to perform under Task Orders issued per Agreement.

Please rate your experience with the Vendor	**Need Improvement**	**Satisfactory**	**Excellent**	**Not Applicable**
Vendor's Quality of Service				
a. Responsive	☐	☐	x	☐
b. Accuracy	☐	☐	☐	☒ did not design wells
c. Deliverables	☐	☐	☒	☐
Vendor's Organization:				
a. Staff expertise	☐	☐	☒	☐
b. Professionalism	☐	☐	☒	☐
c. Staff turnover	☐	☐	☐	☒
Timeliness/Cost Control of:				
a. Project	☐	☐	☐	☒
b. Deliverables	☐	☐	☐	☒ As subs, we do not control scope

Additional Comments (provide additional sheet if necessary):
Gannett Fleming forms an integral part of the team managing a specific scope to support the construction oversight of project. Prime was responsible for managing overall contract.

******THIS SECTION FOR CITY USE ONLY******						
Verified via:	**Email:**	☐	**Verbal:**	☐	**Mail:**	☐
Verified by:	**Name:**				**Title:**	
	Department:				**Date:**	

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION Contract Number: **CA211**

CONSULTANT QUALITY EVALUATION - TYPE OF WORK 3.1, 3.2, 3.3

Eval Status: **Approved**

Contract Number:	CA211	**Project Title:**	Resurfacing and BikeLane/Sidew
Prime Consultant Business Name:	GANNETT FLEMING, INC.	**Sub Consultant:**	
Consultant Project Manager First Name:	Alina	**Consultant Project Manager Last Name:**	Fernandez
FDOT Project Manager:	Bing Wang	**FDOT Project Manager Phone Number:**	9547774406
Work Type Number:	3.3	**Work Type Description:**	Controlled Access Highway Design

Task Work Order Entry:

FM Number List:

Enter Additional Identifying Information for Evaluation:

Construction Contract Number (CCN) and Project Manager (CPM)

CCN	CPM Name	CPM Phone

FDOT Design Project Manager:

Name

Phone

TOTAL SCORE FOR QUALITY CRITERIA: 4.0

FDOT Evaluator:	Bing Wang	**Date:**	04/19/2021
FDOT Reviewer 1:	Henry Oaikhena	**Date:**	04/20/2021

FDOT Evaluator General Comments:

QUALITY EVALUATION CRITERIA

Performance Rating Scale (1-5)

INSTRUCTIONS:

For each numbered item below, please select a score from 1 to 5 in accordance with the performance rating scale. Do not score a criteria item if the criteria item is not applicable to the evaluation. Comments must be entered for ratings of 1 or 5.

Quality Criteria for Highway Design-Roadway	Average Score	4.0
	Rating Scale:	1 - 5
1. Compliance with Project Scope		4
2. Typical Section Package		4
3. Phase Submittals		4
4. Variations and Exceptions		
5. Geometrics/Engineering Reports		4
6. Pavement Design Package		4
7. Roadway Drainage Design (Exercised good judgement and designed according to criteria in the Drainage Manual, PPM, Design Standards, Drainage Handbooks, District Drainage Guidelines)		
8. Stormwater Management Facility Design and WMD Permitting		
9. Environmental Permitting Services (Corp.of Eng., USCG, Local Permits, etc.)		
10. Bridge Hydraulics Report, including Scour Calculations and Deck Drainage		

11. Earthwork and Soils	
12. Utility Coordination/Adjustments (Timely Phase Submittal and Review)	
13. Utility Agreements and Work Schedules	
14. Traffic Control Plans/Maintenance of Traffic	
15. Miscellaneous Structures Plans	
16. Right of Way Requirements and Coordination	
17. Local Agency Coordination and Public Meetings	4
18. Pay Items and Quantities	4
19. Overall Content, Format and Assembly of Roadway Plans	4
20. Maintain and Update Construction Cost Estimates	4
21. Specifications	4
22. Electronic Delivery	4

FDOT Evaluator Section Comments:

Interim or Final Evaluation? Interim

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION Contract Number: **CA211**

CONSULTANT SCHEDULE AND MANAGEMENT EVALUATION

Eval Status: **Approved**

Contract Number:	CA211	**Project Title:**	Resurfacing and BikeLane/Sidew
Prime Consultant Business Name:	GANNETT FLEMING, INC.	**Sub Consultant:**	
Consultant Project Manager First Name:	Alina	**Consultant Project Manager Last Name:**	Fernandez
FDOT Project Manager:	Bing Wang	**FDOT Project Manager Phone Number:**	9547774406

Task Work Order Entry:

FM Number List:

Enter Additional Identifying Information for Evaluation:

Submitted Schedule and Management evaluations must be Bundled with one or more Prime Consultant Quality evaluations.

SCHEDULE EVALUATION CRITERIA			4.0
MANAGEMENT EVALUATION CRITERIA			3.9
FDOT Evaluator:	Bing Wang	**Date:**	04/19/2021
FDOT Reviewer 1:	Henry Oaikhena	**Date:**	04/20/2021

FDOT Evaluator General Comments:

SCHEDULE EVALUATION CRITERIA

Performance Rating Scale (1-5)

INSTRUCTIONS:

For each numbered item below, please select a numerical score from 1 to 5 in accordance with the performance rating scale. Do not provide a rating for criteria that do not apply to this evaluation. Comments must be entered for ratings of 1 or 5.

A. Project Phase Submittals (40%)	Average Score	4.0
	Rating Scale:	1 - 5
Project Phase Submittals		4

FDOT Evaluator Section Comments:

B. Project Milestones (20%)	Average Score	4.0
	Rating Scale:	1 - 5
Project Milestones		4

FDOT Evaluator Section Comments:

C. Status Reports/Schedule Updates (20%)	Average Score	4.0
	Rating Scale:	1 - 5

Status Reports/Schedule Updates 4

FDOT Evaluator Section Comments:

D. Other Project Deliverables (20%)	Average Score	4.0
	Rating Scale:	1 - 5

Other Project Deliverables 4

FDOT Evaluator Section Comments:

MANAGEMENT EVALUATION CRITERIA

Performance Rating Scale (1-5)

INSTRUCTIONS:

For each numbered item below, please select a numerical score from 1 to 5 in accordance with the performance rating scale. Do not provide a rating for criteria that do not apply to this evaluation. Comments must be entered for ratings of 1 or 5.

A. Administration of Contract (weight = 20%)	Average Score	4.0
	Rating Scale:	1 - 5
1. Effectively and proactively controlled the Contract.		4
2. Administered the Contract in an organized manner and was proficient in applying administrative, procedural and technical skills to Contract.		4
3. Effectively coordinated with Department personnel to ensure effective Contract management, with required submittals made timely, in the subscribed format, with no material errors.		4
4. Submitted properly documented invoices; sub-consultants paid promptly; contract funds were tracked and reported as requested to avoid rush amendments, out-of-fund conditions or supplemental agreements.		4
5. Complied with established DBE/MBE commitment.		
6. FOR TASK DRIVEN CONTRACTS ONLY: Responded to the Department in a timely manner regarding tasks requests. For accepted tasks, promptly developed an understanding of the assignment, prepared and submitted an accurate time/fee package, and efficiently initiated the assignment.		

FDOT Evaluator Section Comments:

B. Management of Issues and Resources (weight = 25%)	Average Score	3.6

Rating Scale: 1 - 5

1. Effectively resolved issues; made decisions based on solid logic and sufficient supporting detail.	4
2. Properly supervised staff and coordinated the effort of sub-consultants.	3
3. Effectively minimized the unnecessary involvement of Department staff.	3
4. Effectively managed resources. Continuously provided experienced staff as proposed; was responsive to Department staffing requests; if personnel changes occurred, the credentials of replacement staff were equal to or exceeded the qualifications of the original staff approved, and Department approval was received.	4
5. FOR PROJECTS INVOLVING PERMITS: Sufficiently identified, analyzed and verified that all permit conditions were addressed. Thoroughly documented and proactively worked to resolve permitting issues in a timely manner.	
6. FOR PROJECTS INVOLVING UTILITIES: Sufficiently verified that utilities were coordinated properly and shown in the plans/schedules including providing a summary of changes at subsequent phase submittals. ADDITIONALLY, FOR PROJECTS INVOLVING CONSULTANT UTILITY COORDINATION: succeeded in getting the utility agencies to accept the schedule, and consistently tracked and communicated with the utility companies so they comply with the schedules. Took appropriate action when schedules were not met.	4

FDOT Evaluator Section Comments:

C. Communication, Documentation and Coordination (weight = 25%)	Average Score	4.0
	Rating Scale:	1 - 5
1. Provided the necessary project information to the Department and all project stakeholders in a timely manner.		4
2. Scheduled, conducted and documented meetings in a timely manner.		4
3. Immediately notified the Department of issues impacting schedule and costs; acted proactively by working with various stakeholders to minimize impacts; and resolved issues in a timely manner.		4
4. Prepared thoroughly organized and completed project documentation including a clear filing system, and clear documentation of oral communications.		4
5. Effectively tracked and monitored comment resolution and other action items to ensure timely resolution.		4
6. Properly and efficiently logged, documented, tracked and took appropriate action on all public initiated inquiries from first contact through disposition or resolution. Coordinated effectively with the District Public Information Office, providing relevant data as requested for newsletters, media releases, public meetings, etc.		4

FDOT Evaluator Section Comments:

D. Execution of Work (Schedule, budget, quality control, scope of work) (weight = 30%)	Average Score	4.0
	Rating Scale:	1 - 5
1. Ensured project schedule submittals was submitted and reviewed in accordance with the Contract.		4
2. Reviewed the schedule monthly or as appropriate with the Department. Took appropriate action to reallocate resources if the work items fell behind schedule in accordance with the critical path to minimize impact to the overall schedule.		4
3. Effectively managed the budget and if applicable, was reasonable regarding claims for and negotiations of supplemental agreements.		4
4. Developed a logical quality control plan, and adhered to the plan throughout the project.		4
5. Successfully met the scope and objectives of the project.		4

FDOT Evaluator Section Comments:

Interim or Final Evaluation? Interim

TAB H. SUBCONSULTANTS INFORMATION

GANNETT FLEMING

TAB H. SUBCONSULTANTS INFORMATION

Our subconsultants compliment our comprehensive team with locally based, qualified personnel and extensive prior municipal experience in specialty disciplines needed to successfully complete the potential projects under this contract.

Gannett Fleming has engaged subconsultant firms with the right experience, knowledge, qualifications, and commitment to address the infrastructure needs of the City of Hollywood. All members of our team will leverage a shared vision of teamwork, innovation, and proven approaches to deliver accurate, easily accessible results across a project's life-span. We strategically built our team with three businesses, two of which are Broward County-certified minority businesses. Each offers services that enhance our capabilities to anticipate and meet the contract requirements and the City's project goals.

Gannett Fleming has significant experience in managing multiple subconsultants under task order contracts. We understand that we are ultimately accountable for the performance of our subconsultants and treat them as an extension of our staff to ensure you receive quality services.

Our approach to managing subconsultants includes:

- ☑ Selecting qualified and experienced subconsultants with whom we have previously worked or with a known quality reputation
- ☑ Having a subcontractor agreement detailing subconsultants scope of services, deliverables, schedules, and budget
- ☑ Maintaining regular communication and conducting periodic audits of work products
- ☑ Requiring adherence to our quality assurance policies and procedures established under our ISO 9001:2015 certification

METCO Southeast CONSULTING ENGINEERS

- Certified Small and Disadvantaged Business with Broward County
- Providing MEP solutions to Florida communities and their water and wastewater systems since 2008
- Extensive experience in Broward County, including with the City of Hollywood

FRALEMAN

- Certified M/WBE with the State of Florida Office of Supplier Diversity
- Providing engineering, geospatial/surveying and mapping for the past 30+ years
- Extensive experience in Broward County

AREHNA | Engineering, Inc.

- Certified Business Enterprise with Broward County, FDOT DBE and SBE, and Certified WBE with the State of Florida Office of Supplier Diversity
- Providing innovative and comprehensive geotechnical and structural forensic engineering throughout the state
- Extensive experience in Broward County, including with the City of Hollywood

TAB I. FINANCIAL RESOURCES

Not Applicable per Q&A on OpenGov

GANNETT FLEMING

TAB J. LEGAL PROCEEDINGS AND PERFORMANCE

GANNETT FLEMING

GANNETT FLEMING

800 NW 62nd Avenue
Suite 490
Miami, FL 33126
P 786.845.9540 | **F** 786.845.6802

gannettfleming.com

RE: **Tab J. Legal Proceedings and Performance**

Gannett Fleming, Inc. has not paid liquidated damages or been terminated for default in the past 5 years. Please see below our responses to the required information in the RFQ:

1. Arbitrations; List all construction arbitration demands filed by or against your firm in the last five years, and identify the nature of the claim, the amount in dispute, the parties, and the ultimate resolution of the proceeding.

Please see our response on the following page.

2. Lawsuits: List all construction related lawsuits (other than labor or personal injury litigation) filed by or against your firm in the last five years, and identify the nature of the claim, the amount in dispute, the parties, and the ultimate resolution of the lawsuit.

Please see our response on the following page.

3. Other Proceedings: Identify any lawsuits, administrative proceedings, or hearings initiated by the National Labor Relations Board or similar state agency in the past five years concerning any labor practices by your firm. Identify the nature of any proceeding and its ultimate resolution. Identify any lawsuits, administrative proceedings, or hearings initiated by the Occupational Safety and Health Administration concerning the project safety practices of your company in the last five years. Identify the nature of any proceeding and its ultimate resolution.

Gannett Fleming, Inc. has no disclosures to make in response to this inquiry.

4. Bankruptcies: Has your firm or its parents or any subsidiaries ever had a Bankruptcy Petition filed in its name, voluntarily or involuntarily? (If yes, specify date, circumstances, and resolution).

Gannett Fleming, Inc. has no disclosures to make in response to this inquiry.

5. Has a contract to which you were a party even been terminated by the other party?

Gannett Fleming, Inc. is part of a large engineering organization, which has been in business since 1915, and at any one time has 4,000 to 6,000-plus open contracts. From time to time, some clients, as they often have the right to do, have terminated contracts for their convenience. Gannett Fleming does not maintain records of contracts terminated for convenience. However,

Gannett Fleming can represent that during the past five-year period, no Gannett Fleming contract has been terminated for default or material breach.

6. Have you ever had to use bonding moneys to complete a project or to pay a subconsultant or supplier?

Gannett Fleming, Inc. has no disclosures to make in response to this inquiry.

LITIGATION HISTORY
CONFIDENTIAL

Gannett Fleming, Inc. is part of a large consulting engineering organization that has been in continuous operation since 1915 and employs over 2,600 people. Gannet Fleming, Inc. is the primary operating company in the United States and conducts business throughout the U.S. for private and public sector clients at the municipal, state and federal levels. Although Gannett Fleming's involvement in claims and lawsuits is relatively infrequent due to its aggressive quality control efforts, claims and lawsuits involving Gannett or its affiliated companies do occur. To protect itself against such claims, Gannett carries automobile, general and professional liability, and workers' compensation insurance.

Gannett Fleming, Inc. provides the following confidential information regarding project related litigation filed within the prior five years. No claim materially affects the viability or stability of the Gannett Fleming organization, or our ability to serve our clients. In the event you require additional information, you may contact Audrey J. Daly, Vice President and General Counsel at 207 Senate Ave., Camp Hill, PA 17011, email: adaly@gfnet.com

GANNETT FLEMING, INC. 5 YEAR HISTORY - CONSTRUCTION RELATED LAWSUITS AND ARBITRATIONS (EXCLUDES BODILY INJURY AND EMPLOYMENT CLAIMS)			
CAPTION/PARTIES	**DESCRIPTION OF DISPUTE**	**BEGIN / END DATES**	**STATUS OR OUTCOME**
Municipal Authority of the Town of Bloomsburg v. Gannett Fleming, Inc. Columbia Co. CCP No. 2015-CV-1496	Bloomsburg filed a Writ of Summons against GF related to design and construction of the Bloomsburg WWTP.	11/2015 –03/2019	GF received and responded to all issues in a letter from Bloomsburg, denying any liability. Bloomsburg filed a Praecipe to Discontinue; the case was dismissed.

GANNETT FLEMING, INC. 5 YEAR HISTORY - CONSTRUCTION RELATED LAWSUITS AND ARBITRATIONS (EXCLUDES BODILY INJURY AND EMPLOYMENT CLAIMS)			
CAPTION/PARTIES	**DESCRIPTION OF DISPUTE**	**BEGIN / END DATES**	**STATUS OR OUTCOME**
MCM v. GF Inc., et al. AAA Arbitration	MCM filed notice of Arbitration arising out of two design-build projects in Florida. The Bridges of Iles filing was challenged and dismissed in July 2018. The second claim arises out of the construction of additional lanes for the HEFT II project.	05/2017 – 06/2021	Arbitrators had been selected when in March 2019, MCM filed for bankruptcy; bankruptcy plan was approved December 2019. Settlement discussions continued; mediation was successful in settling claims with two subconsultants. Deadlines were extended due to COVID guidelines. The final hearing concluded late April 2021. Final briefs and proposed findings were filed late May 2021. An interim award from Arbitrators found MCM and GF were entitled to awards. The matter settled in June 2021 with no finding of liability against GF. Subject to confidentiality.
Meco Construction v. GF Inc., Pennoni and Urban Engineering Bucks Co. PA CCP 2020-00805	Excavation contractor alleging issues regarding the presence of Regulated Fill on a PA Turnpike project. Claim is related to alleged cut/fill quantities and cost of removal.	02/2020 Pending	Writ of summons only had been filed when the court listed the matter for pre-trial conference, which prompted the plaintiff to file the complaint March 2021. Intentional misrepresentation claims were dropped in response to GF's preliminary objections Discussions continue regarding negligence claims.
Abington Regional Water Authority v. GF Inc. Lackawanna Co. PA CCP 2020-CV-4604	Writ of summons filed relating to design and construction management services for a wastewater treatment plant upgrade, asserting claims that, since construction, the roof of a biosolids building has experienced leaks.	11/2020 Pending	Complaint has not yet been filed. GF and ARWA are engaged in evaluation of the claim.

GANNETT FLEMING, INC. 5 YEAR HISTORY - CONSTRUCTION RELATED LAWSUITS AND ARBITRATIONS (EXCLUDES BODILY INJURY AND EMPLOYMENT CLAIMS)			
CAPTION/PARTIES	**DESCRIPTION OF DISPUTE**	**BEGIN / END DATES**	**STATUS OR OUTCOME**
Triton Construction, Inc. v. GF Inc. Preston Co. WV CCP 21-C-7	Triton asserts claims arising from dewatering claim on the Upper Deckers Creek dam project.	01/2021 Pending	Complaint was filed in January; in late February 2021, Triton filed amended complaint joining Monagahela Conservation Disct. Counsel has been retained, is reviewing documents and developing the litigation plan.
Reading Area Water Authority v. GF Inc. and UGI Utilities v. GF Inc. Berks Co. PA CCP 21-2816 and 21-2949	Two separate actions alleging professional negligence claims associated with design of a cofferdam for PennDOT's construction of the Penn Street Bridge in Reading PA.	04/2021 Pending	Complaints were served late April. Counsel has been retained and an answer to UGI's complaint has been filed. Documents continue to be reviewed and the litigation plan is being developed.
DOLI Construction Corporation v. McConnellsburg Borough Municipal Authority and Gannett Fleming, Inc. Court of Common Pleas Fulton County, PA No. 103-2021C	DOLI filed a complaint against the Borough of McConnellsburg and GF for additional costs associated with construction of a watermain. GF Inc. provided design and construction management services for a watermain replacement project. Doli made a claim for additional paving costs and was issued a change order to cover those costs. At the end of the project, there was still a dispute over final costs.	06/2021 Pending	GF retained counsel and filed an Answer to the Complaint.
The Borough of Gilberton v. Pennsylvania Department of Transportation and NTM Engineering Margaret Arbushites, et al. v.HRI Inc., Pennsylvania Department of Transportation and NTM Engineering Schuylkill County S-827-21 and 21-1568	Two separate actions alleging professional negligence claims associated with construction of the SR 92 Bridge Replacement. Gannett Fleming, Inc. was named as an additional defendant.	12/2021 Pending	Complaints were served in December and Counsel has been retained.

LITIGATION HISTORY
Subconsultants

Metco Southeast, LLC

Metco Southeast, LLC has not been involved in any legal proceedings in the last five years.

AREHNA Engineering, Inc.

There is no litigation of any judgments, assessments, impositions, charges, suits, actions, decrees, orders, claims, arbitrations, and back charges asserted or awarded against said Subconsultant "AREHNA Engineering, Inc." in the past seven (7) years which exceed $100,000.00 with a governmental agency or which may affect the performance of the services to be rendered under this contract.

F. R. Aleman and Associates, Inc.

In the last five years, there are only two disputes filed against F R Aleman. One was made by EAC. In that arbitration proceeding, the issue focused on who was responsible to pay certain cost overruns incurred by F R Aleman in performing an as-built survey on a construction project to replace water mains in the Shenandoah neighborhood (the "Project") located in Miami-Dade County. The design-builder on the Project, Ric-Man Construction Florida, Inc., retained EAC Consulting, Inc. ("EAC") as its design consultant. In turn, EAC, subcontracted with Aleman via a Subconsultant Agreement (the "Contract") to perform survey services.

Aleman initiated an arbitration proceeding against EAC alleging that EAC refused to pay Aleman for cost overruns and for the additional effort and labor expenses performed by Aleman at EAC's direction. EAC denied liability and filed a two-count counterclaim alleging breach of contract and breach of the implied covenant of good faith and fair dealing. After a final hearing before a panel of three arbitrators, the Panel found that Aleman had incurred "significant cost overruns" on the Project but denied Aleman's claims finding that it failed to prove its damages. The Tribunal also denied EAC's claims in their entirety. Nevertheless, the Panel found EAC to be the prevailing party by virtue of its finding that Aleman breached the contract and awarded nearly $500,000 in attorneys' fees and costs to EAC. Notably, the fees awarded to EAC, which equaled $381,440.25, was almost 40% higher than what was actually paid by EAC to its attorneys, which was only $236,242.85. Whether EAC is entitled to those attorney's fees is currently pending before the Third District Court of Appeal.

In March 2021, FRA entered into a dispute with IMC Property Management and Maintenance, Inc. and Northside Centre, LLC for an alleged claim regarding a utility hole for a project at the NW corner of NW 27 Avenue and NW 79 Street, Miami, Florida for a Harbor Freight Tools USA, Inc. location. It was discovered an 8" force main was not shown and/or identified correctly. We disagree, and drawings were submitted and approved for permit and construction. At some point the construction of the Harbor Freight Store was completed.

If you need additional information, please feel free to contact our Legal Counsel listed below:

Matthew P. Leto
(t) 305.341.3155; (f) 305.397.1168
(e) Mleto@letolawfirm.com
(a) 201 South Biscayne Blvd. Suite 2700, Miami, FL 33131
(w) www.letolawfirm.com

REQUIRED FORMS

GANNETT FLEMING

REQUESTED MODIFICATIONS TO RFQ REQUIREMENTS / OPENGOV LANGUAGE

Due to inherent limitations of OpenGov, Gannett Fleming has accepted and confirmed all language in order to submit this Statement of Qualifications. As noted in the required Statement of Qualification Certification under Variances and as posted in Q&A #69, #70, and #71 in OpenGov, Gannett Fleming, Inc. kindly requests the modification of the following language:

Section 7.12 Competency of the Proposers

For the City Attorney's consideration, we kindly request modifying the first paragraph under Section 7.12 Competency of the Proposers in the RFQ for compliance with industry professional liability insurance as established under the law. We understand that this request will require effort and coordination, thus understand that this clarification can be carried out in the next phase of this solicitation:

RFQ language:

Pre-award inspection of the Proposer's facility may be made prior to the award of a contract. Bids/ proposals will be considered only from firms which are regularly engaged in the business of providing the goods and/or services as described in this SOLICITATION(s); have a record of performance for a reasonable period of time; and have sufficient financial support, equipment and organization to ensure that they can satisfactorily deliver the material and/or services if awarded a Contract under the terms and conditions herein stated. The terms "equipment and organization" as used herein shall be construed to mean a fully equipped and well established company in line with the best business practices in the industry and as determined by the proper authorities of the City.

Proposed modification:

Pre-award inspection of the Proposer's facility may be made prior to the award of a contract. Bids/ proposals will be considered only from firms which are regularly engaged in the business of providing the goods and/or services as described in this SOLICITATION(s); have a record of performance for a reasonable period of time; and have sufficient financial support, equipment and organization to deliver the material and/or services if awarded a Contract under the terms and conditions herein stated. The terms "equipment and organization" as used herein shall be construed to mean a fully equipped and well established company in line with performing in accordance with the "Standard of Care".

Section 7.57 Nature of The Agreement

For the City Attorney's consideration, we kindly request modifying the fourth paragraph under Section 7.57 Nature of The Agreement in the RFQ for inclusion of the "Standard of Care" definition. We respectfully request the addition of this definition in accordance with industry professional liability insurance established using the standard upheld under the law. We understand that this request will require effort and coordination, thus understand that this clarification can be carried out in the next phase of this solicitation.

RFQ language:

The Proposer shall furnish all labor, materials, tools, supplies, and other items required to perform the work and services that are necessary for the completion of this Contract. All work and services shall be accomplished at the direction of and to the satisfaction of the City's Project Manager.

Proposed modification:

The Proposer shall furnish all labor, materials, tools, supplies, and other items required to perform the work and services that are necessary for the completion of this Contract. All work and services shall be accomplished with that degree of care and skill ordinarily exercised by members of the same profession currently practicing under similar conditions at the same time and locality of the Project (the "Standard of Care") at the direction of the City's Project Manager.

Sections 7.46 Indemnification and Hold Harmless Agreement and 8.4 Hold Harmless and Indemnity Clause

For the City Attorney's clarification, please clarify Sections 7.46 Indemnification and Hold Harmless Agreement in the RFQ and 8.4 Hold Harmless and Indemnity Clause in the Vendor Questionnaire. Is the intent that the City will be carrying forward Clause 8.4 into the agreement? Or is this Clause part of Section 7.46?

For the City Attorney's consideration, we kindly request modifying the paragraph under Section 7.46 Indemnification and Hold Harmless Agreement in the RFQ. We understand that this request will require effort and coordination, thus understand that this clarification can be carried out in the next phase of this solicitation.

RFQ language:

The Contractor shall indemnify and hold harmless the City of Hollywood and its officers, employees, agents and instrumentalities from any and all liability, losses or damages. In addition, the City shall be entitled to attorney's fees and costs of defense, which the City of Hollywood, or its officers, employees, agents or instrumentalities may incur as a result of claims, demands, suits, causes of actions or proceedings of any kind or nature arising out of, relating to or resulting from the performance of this project by the awarded proposer or its employees, agents, servants, partners, principals or subcontractors. Furthermore, the awarded proposer shall pay all claims and losses in connection therewith and shall investigate and defend all claims, suits or actions of any kind of nature in the name of the City of Hollywood, where applicable, including appellate proceedings, and shall pay all costs, judgments, and attorney's fees which may issue thereon. The awarded proposer expressly understands and agrees that any insurance protection required by the resulting agreement or otherwise provided by the awarded proposer shall cover the City of Hollywood, its officers, employees, agents and instrumentalities and shall include claims for damages resulting from and/or caused by the negligence, recklessness or intentional wrongful misconduct of the Contractor and persons employed by or utilized by the Contractor in the performance of the contract.

Proposed modification:

The Contractor shall indemnify and hold harmless the City of Hollywood and its officers, employees, designated agents and instrumentalities from liability, losses or damages to the extent caused by the Contractor's negligent acts, errors, or omissions. In addition, the City shall be entitled to reasonable attorney's fees and costs of defense, which the City of Hollywood, or its officers, employees, designated agents or instrumentalities incur as a result of the negligent performance of this project by

the Contractor or its employees, agents, servants, partners, principals or subcontractors. Furthermore, the Contractor shall pay losses to the extent of the Contractor's negligence in connection therewith and shall investigate and defend (except as limited below) claims, suits or actions in the name of the City of Hollywood, where applicable, including appellate proceedings, and shall pay costs, judgments, and reasonable attorney's fees to the extent caused by the Contractor's negligence. The Contractor expressly understands and agrees that any insurance protection required by the resulting agreement or otherwise provided by the Contractor shall cover the City of Hollywood, its officers, employees, designated agents and instrumentalities and shall include claims for damages to the extent caused by the negligence, recklessness or intentional wrongful misconduct of the Contractor and persons employed by or utilized by the Contractor in the performance of the contract. The aforementioned duty to defend shall not apply to claims for damages of a professional nature or to claims that would be subject to coverage under the Contractor's professional liability insurance policy.

SWORN STATEMENT PURSUANT TO SECTION 287.133 (3) (a) FLORIDA STATUTES ON PUBLIC ENTITY CRIMES

THIS FORM MUST BE SIGNED AND SWORN TO IN THE PRESENCE OF A NOTARY PUBLIC OR OTHER OFFICIAL AUTHORIZED TO ADMINISTER OATHS

1. This form statement is submitted to the City of Hollywood by Yurfa Glenny, PMP for Gannett Fleming, Inc.
(Print individual's name and title) (Print name of entity submitting sworn statement) whose business address is 800 NW 62nd Avenue, Suite 490, Miami, FL 33126
and if applicable its Federal Employer Identification Number (FEIN) is 25-1613591. If the entity has no FEIN, include the Social Security Number of the individual signing this sworn statement.

2. I understand that "public entity crime," as defined in paragraph 287.133(1)(g), Florida Statues, means a violation of any state or federal law by a person with respect to and directly related to the transaction of business with any public entity or with an agency or political subdivision of any other state or with the United States, including, but not limited to, any bid, proposal, reply, or contract for goods or services, any lease for real property, or any contract for the construction or repair of a public building or public work, involving antitrust, fraud, theft, bribery, collusion, racketeering, conspiracy, or material misinterpretation.

3. I understand that "convicted" or "conviction" as defined in Paragraph 287.133(1)(b), Florida Statutes, means a finding of guilt or a conviction of a public entity crime, with or without an adjudication of guilt, in an federal or state trial court of record relating to charges brought by indictment or information after July 1, 1989, as a result of a jury verdict, nonjury trial, or entry of a plea of guilty or nolo contendere.

4. I understand that "Affiliate," as defined in paragraph 287.133(1)(a), Florida Statutes, means:

    1. A predecessor or successor of a person convicted of a public entity crime, or
    2. An entity under the control of any natural person who is active in the management of the entity and who has been convicted of a public entity crime. The term "affiliate" includes those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in the management of an affiliate. The ownership by one person of shares constituting a controlling interest in another person, or a pooling of equipment or income among persons when not for fair market value under an arm's length agreement, shall be a prima facie case that one person controls another person. A person who knowingly enters into a joint venture with a person who has been convicted of a public entity crime in Florida during the preceding 36 months shall be considered an affiliate.

5 I understand that "person," as defined in Paragraph 287.133(1)(e), Florida Statues, means any natural person or any entity organized under the laws of any state or of the United States with the legal power to enter into a binding contract and which bids or applies to bid on contracts let by a public entity, or which otherwise transacts or applies to transact

business with a public entity. The term "person" includes those officers, executives, partners, shareholders, employees, members, and agents who are active in management of an entity.

6. Based on information and belief, the statement which I have marked below is true in relation to the entity submitting this sworn statement. (Please indicate which statement applies.)

__X__ Neither the entity submitting sworn statement, nor any of its officers, director, executives, partners, shareholders, employees, members, or agents who are active in the management of the entity, nor any affiliate of the entity has been charged with and convicted of a public entity crime subsequent to July 1, 1989.

_____ The entity submitting this sworn statement, or one or more of its officers, directors, executives, partners, shareholders, employees, members, or agents who are active in the management of the entity, or an affiliate of the entity, or an affiliate of the entity has been charged with and convicted of a public entity crime subsequent to July 1, 1989.

_____ The entity submitting this sworn statement, or one or more of its officers, directors, executives, partners, shareholders, employees, members, or agents who are active in the management of the entity, or an affiliate of the entity has been charged with and convicted of a public entity crime, but the Final Order entered by the Hearing Officer in a subsequent proceeding before a Hearing Officer of the State of the State of Florida,

Division of Administrative Hearings, determined that it was not in the public interest to place the entity submitting this sworn statement on the convicted vendor list. (attach a copy of the Final Order).

I UNDERSTAND THAT THE SUBMISSION OF THIS FORM TO THE CONTRACTING OFFICER FOR THE PUBLIC ENTITY IDENTIFIED IN PARAGRAPH 1 (ONE) ABOVE IS FOR THAT PUBLIC ENTITY ONLY AND THAT THIS FORM IS VALID THROUGH DECEMBER 31 OF THE CALENDAR YEAR IN WHICH IT IS FILED. I ALSO UNDERSTAND THAT I AM REQUIRED TO INFORM THAT PUBLIC ENTITY PRIOR TO ENTERING INTO A CONTRACT IN EXCESS OF THE THRESHOLD AMOUNT PROVIDED IN SECTION 287.017 FLORIDA STATUTES FOR A CATEGORY TWO OF ANY CHANGE IN THE INFORMATION CONTAINED IN THIS FORM.

`

_____
(Signature)

Sworn to and subscribed before me this 14 day of February, 2023.

Personally known Yunfa Glenny

Or produced identification _____ Notary Public-State of Florida

_____ my commission expires 06/28/2024
(Type of identification)

_____
(Printed, typed or stamped commissioned name of notary public)

Notary Public State of Florida
Angela Lopez
My Commission HH 015202
Expires 06/28/2024

Form **W-9**
(Rev. October 2018)
Department of the Treasury
Internal Revenue Service

Request for Taxpayer Identification Number and Certification

▶ Go to *www.irs.gov/FormW9* for instructions and the latest information.

Give Form to the requester. Do not send to the IRS.

Print or type
See Specific Instructions on page 3.

1 Name (as shown on your income tax return). Name is required on this line; do not leave this line blank.
Gannett Fleming, Inc.

2 Business name/disregarded entity name, if different from above

3 Check appropriate box for federal tax classification of the person whose name is entered on line 1. Check only **one** of the following seven boxes.

☐ Individual/sole proprietor or single-member LLC ☒ C Corporation ☐ S Corporation ☐ Partnership ☐ Trust/estate

☐ Limited liability company. Enter the tax classification (C=C corporation, S=S corporation, P=Partnership) ▶ _____

Note: Check the appropriate box in the line above for the tax classification of the single-member owner. Do not check LLC if the LLC is classified as a single-member LLC that is disregarded from the owner unless the owner of the LLC is another LLC that is **not** disregarded from the owner for U.S. federal tax purposes. Otherwise, a single-member LLC that is disregarded from the owner should check the appropriate box for the tax classification of its owner.

☐ Other (see instructions) ▶

4 Exemptions (codes apply only to certain entities, not individuals; see instructions on page 3):

Exempt payee code (if any) 5

Exemption from FATCA reporting code (if any) _____

(Applies to accounts maintained outside the U.S.)

5 Address (number, street, and apt. or suite no.) See instructions.
207 Senate Avenue

Requester's name and address (optional)

6 City, state, and ZIP code
Camp Hill, PA 17011-2316

7 List account number(s) here (optional)

Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on line 1 to avoid backup withholding. For individuals, this is generally your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the instructions for Part I, later. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN,* later.

Note: If the account is in more than one name, see the instructions for line 1. Also see *What Name and Number To Give the Requester* for guidelines on whose number to enter.

Social security number

or

Employer identification number
25-1613591

Part II Certification

Under penalties of perjury, I certify that:

1. The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me); and
2. I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding; and
3. I am a U.S. citizen or other U.S. person (defined below); and
4. The FATCA code(s) entered on this form (if any) indicating that I am exempt from FATCA reporting is correct.

Certification instructions. You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN. See the instructions for Part II, later.

Sign Here | **Signature of U.S. person** ▶ [signature] | **Date** ▶ 1/23/2023

STATEMENT OF QUALIFICATION CERTIFICATION

Please Note: All fields below must be completed. If the field does not apply to you, please note N/A in that field.

If you are a foreign corporation, you may be required to obtain a certificate of authority from the department of state, in accordance with Florida Statute §607.1501 (visit http://www.dos.state.fl.us/).

Company: (Legal Registration) Gannett Fleming, Inc.

Name/Principal/Project Manager: Yurfa Glenny, PMP - Vice President

Address: 800 NW 62nd Avenue, Suite 490

City: Miami State: FL Zip: 33126

Telephone No. _____ **FEIN/Tax ID No**. 25-1613591 Email: yglenny@gfnet.com

Does your firm qualify for MBE or WBE status: N/A MBE _____ WBE _____

ADDENDUM ACKNOWLEDGEMENT - Proposer acknowledges that the following addenda have been received and are included in the proposal:

Addendum No.	Date Issued	Addendum No.	Date Issued
#1	1/18/2023	#3	1/19/2023
#2	1/19/2023	#4	1/24/2023
		#5	2/21/2023

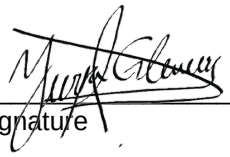
VARIANCES: State any variations to specifications, terms and conditions in the space provided below or reference in the space provided below all variances contained on other pages of bid, attachments or bid pages. No variations or exceptions by the Proposer will be deemed to be part of the bid submitted unless such variation or exception is listed and contained within the bid documents and referenced in the space provided below. If no statement is contained in the below space, it is hereby implied that your bid/proposal complies with the full scope of this solicitation. If this section does not apply to your bid/proposal, simply mark N/A. **If submitting your response electronically through OPENGOV you must click the exception link if any variation or exception is taken to the specifications, terms and conditions.**

Under the Required Forms tab of our Statement of Qualifications, Gannett Fleming has included requested modifications to the RFQ/OpenGov language per Q&A 69, 70, and 72 posted to OpenGov. Due to inherent limitations of OpenGov, Gannett Fleming has accepted and confirmed all language in order to submit our SOQ.

The below signatory hereby agrees to furnish the following article(s) or services at the price(s) and terms stated subject to all instructions, conditions, specifications addenda, legal advertisement, and conditions contained in the bid/proposal. I have read all attachments including the specifications and fully understand what is required. By submitting this signed bid/proposal, I will accept a contract if approved by the City and such acceptance covers all terms, conditions, and specifications of this bid/proposal. The below signatory also hereby agrees, by virtue of submitting or attempting to submit a response, hereby agrees that in no event shall the City's liability for respondent's indirect, incidental, consequential, special or exemplary damages, expenses, or lost profits arising out of this competitive solicitation process, including but not limited to public advertisement, bid conferences, site visits, evaluations, oral presentations, or award proceedings exceed the amount of five hundred dollars ($500.00). This limitation shall not apply to claims arising under any provision of indemnification or the City's protest ordinance contained in this competitive solicitation.

Submitted by:

Yurfa Glenny, PMP — Name (printed)

 — Signature

Vice President — Title

2/23/2023 — Date:

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LICENSEE DETAILS

3:17:11 PM 2/13/2023

Licensee Information

Name:	GANNETT FLEMING, INC (Primary Name)
Main Address:	207 SENATE AVENUE CAMP HILL Pennsylvania 17011
County:	OUT OF STATE

License Information

License Type:	Engineering Business Registry
Rank:	Registry
License Number:	5564
Status:	Current
Licensure Date:	01/23/1990
Expires:	

Special Qualifications	Qualification Effective

Alternate Names

View Related License Information
View License Complaint

OFFICE OF ECONOMIC AND SMALL BUSINESS DEVELOPMENT
Governmental Center Annex
115 S. Andrews Avenue, Room A680 • Fort Lauderdale, Florida 33301 • 954-357-6400

October 27, 2022

Ms. Rosana Santos
METCO SERVICES SOUTHEAST, LLC
800 W. Cypress Creek Road, Suite 501
Fort Lauderdale, Florida 33309

Dear Ms. Santos:

The Broward County Office of Economic and Small Business Development (OESBD) is pleased to announce that your firm's **County Business Enterprise (CBE)** certification has been renewed.

Your firm's certification is continuing from your anniversary date but is contingent upon the firm verifying its eligibility annually through this office. You will be notified in advance of your obligation to continue eligibility in a timely fashion. However, the responsibility to ensure continued certification is yours. Failure to document your firm's continued eligibility for the CBE program within **thirty (30) days** from your anniversary may result in the expiration of your firm's certification. Should you continue to be interested in certification after it has expired, you will need to submit a new application, and all required supporting documentation for review.

To review current Broward County Government bid opportunities, visit: www.broward.org/Purchasing and click on "Current Solicitations and Results." Also, from this website, you can log into your firm's profile in BidSync to ensure you have added all appropriate classification codes. Bid opportunities over $3,500 will be advertised to vendors via e-mail and according to classification codes, so please ensure that both the Purchasing Division and OESBD are apprised of your current e-mail address.

Your primary certification group is: **Architecture and Engineering Services.** This is also how your listing in our directory will read. You may access your firm's listing by visiting the Office of Economic and Small Business Development Directory, located on the internet at: www.broward.org/EconDev and click on "Certified Firm Directories."

Your firm may compete for, and perform work on Broward County projects in the following area:

NAICS CODE: 541330

We look forward to working with you to achieve greater opportunities for your business through county procurement.

Sincerely,

SANDY-MICHAEL MCDONALD
Digitally signed by SANDY-MICHAEL MCDONALD
Date: 2022.11.01 15:45:36 -04'00'

Sandy-Michael McDonald, Director
Office of Economic and Small Business Development

Cert Agency: BC-CBE
ANNIVERSARY DATE: AUGUST 27th

Office of
Equal Business Opportunity
50 South Military Trail, Suite 202
West Palm Beach, FL 33415
(561) 616-6840
www.pbcgov.com/oebo

October 21, 2022

Metco Services Southeast, LLC
Attention: Rosana Santos
100 S Dixie Hwy., Ste. 305
West Palm Beach, FL 33401

Dear Rosana Santos:

The Palm Beach County Office of Equal Business Opportunity (OEBO) has completed its review of your application and documents and is pleased to announce that your firm has been re-certified for:

- **92531 - Electrical Engineering (Incl. Cogeneration Design Services)**
- **9253129 - Electrical/Mechanical Engineering**
- **90740 - Engineering Services, Non-Licensed (Not Otherwise Classified**
- **92567 - Mechanical Engineering**
- **92596 - Waste Water Treatment Engineering**

as a Small/Minority Business Enterprise (S/MBE) for three (3) years, expiring **October 20, 2025.** You will not receive Small/Minority Business Enterprise (S/MBE) consideration if you bid in another area. Enclosed is your certificate.

Your firm shall be subject to the provisions of the Palm Beach County Purchasing Ordinance and all State and Federal laws relating to the transaction of business.

This certification entitles you to participate in contracting opportunities when the products and services offered by your firm are being considered for bid. As an additional service to your firm, you will be included in the Palm Beach County Directory of certified S/M/WBE firms. If you wish to have your firm's listing changed, please contact our office at (561) 616-6840.

Your company's certification is subject to periodic review to verify your continued eligibility. Any changes you report to any County Department/Division must also be reported to OEBO. Your company name and vendor code must be the same in both Purchasing and OEBO. Failure to maintain your firm in accordance with S/M/WBE requirements contained in the Palm Beach County Code or failure to report changes in the status of your firm may result in your firm being decertified. Remember, whenever you respond to a County bid you must do so under the name of **Metco Services Southeast, LLC** with vendor code **VC0000122423.**

Sincerely,

Angela Smith
Small Business Development Specialist III

Florida dbpr Department of Business & Professional Regulation

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- AB&T Delinquent Invoice & Activity List Search

LICENSEE DETAILS

2:16:26 PM 2/1/2023

Licensee Information

Name:	**AREHNA ENGINEERING, INC.** (Primary Name)
Main Address:	**5012 W. LEMON STREET** **TAMPA Florida 33609**
County:	**HILLSBOROUGH**

License Information

License Type:	**Engineering Business Registry**
Rank:	**Registry**
License Number:	**28410**
Status:	**Current**
Licensure Date:	**02/19/2009**
Expires:	

Ron DeSantis, Governor

Melanie S. Griffin,Secretary

FBPE FLORIDA BOARD OF PROFESSIONAL ENGINEERS

STATE OF FLORIDA

BOARD OF PROFESSIONAL ENGINEERS

THE PROFESSIONAL ENGINEER HEREIN IS LICENSED UNDER THE PROVISIONS OF CHAPTER 471, FLORIDA STATUTES

MCRORY, JESSICA ANN

5012 W. LEMON STREET
TAMPA FL 33609

LICENSE NUMBER: PE68440

EXPIRATION DATE: FEBRUARY 28, 2025

Always verify licenses online at MyFloridaLicense.com

Do not alter this document in any form.

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Ron DeSantis, Governor

Melanie S. Griffin,Secretary

FBPE FLORIDA BOARD OF PROFESSIONAL ENGINEERS

STATE OF FLORIDA

BOARD OF PROFESSIONAL ENGINEERS

THE PROFESSIONAL ENGINEER HEREIN IS LICENSED UNDER THE PROVISIONS OF CHAPTER 471, FLORIDA STATUTES

ALBA, ANGELA L.

11365 SOLSTICE CIRCLE
PARKLAND FL 33076

LICENSE NUMBER: PE58538

EXPIRATION DATE: FEBRUARY 28, 2025

Always verify licenses online at MyFloridaLicense.com

Do not alter this document in any form.

This is your license. It is unlawful for anyone other than the licensee to use this document.

BROWARD COUNTY FLORIDA

Office of Economic and Small Business Development

Governmental Center Annex
115 S. Andrews Avenue, Room A680 • Fort Lauderdale, Florida 33301 • 954-357-6400 • FAX 954-357-5674 • TTY 954-357-5664

This Certificate is Awarded to:

AREHNA ENGINEERING, INC.

As set forth in the Broward County Business Opportunity Act of 2012, the certification requirements have been met for:

County Business Enterprise

Anniversary Date: April 7th

Authorized Representative

The Office of Economic and Small Business Development must be notified within 30 days of any material changes in the business which may affect ownership and control. Failure to do so may result in the revocation of this certificate and/or imposition of other sanctions.

A Service of the Broward County Board of County Commissioners
www.broward.org/smallbusiness

LITHO IN U.S.A.

Florida Unified Certification Program

Disadvantaged Business Enterprise (DBE)
Certificate of Eligibility

AREHNA ENGINEERING INC

MEETS THE REQUIREMENTS OF 49 CFR, PART 26

APPROVED NAICS CODES:

541330, 541990, 541380

Samuel (Sammy) Febres

DBE & Small Business Development Manager

Florida Department of Transportation

State of Florida

Woman Business Certification

AREHNA Engineering, Inc.

Is certified under the provisions of
287 and 295.187, Florida Statutes, for a period from:
09/03/2021 to 09/03/2023

Jonathan R. Satter, Secretary
Florida Department of Management Services

Department of MANAGEMENT SERVICES
Office of Supplier Diversity

Office of Supplier Diversity
4050 Esplanade Way, Suite 380
Tallahassee, FL 32399
850-487-0915
www.dms.myflorida.com/osd

Miami-Dade County
Internal Services Department
Statement of Technical Certification Categories

Firm: **F R ALEMAN & ASSOCIATES INC**

10305 NW 41 Street, Suite 200, Miami, FL 33178

Code	Category Description	Approval Date	Expiration Date
1.02	TRANSPORTATION PLANNING - MASS AND RAPID TRANSIT PLANNING	04/21/2021	06/30/2023
2.02	MASS TRANSIT SYSTEMS - MASS TRANSIT FEASIBILITY & TECHNICAL STUDIES	04/21/2021	06/30/2023
2.04	MASS TRANSIT SYSTEMS - MASS TRANSIT CONTROLS, COMMUNICATIONS & INFORMATION SYSTEMS	04/21/2021	06/30/2023
3.02B	HIGHWAY SYSTEMS - MINOR HIGHWAY DESIGN	04/21/2021	06/30/2023
3.04	HIGHWAY SYSTEMS - TRAFFIC ENGINEERING STUDIES	04/21/2021	06/30/2023
3.05	HIGHWAY SYSTEMS - TRAFFIC COUNTS	04/21/2021	06/30/2023
3.06	HIGHWAY SYSTEMS - TRAFFIC CALMING	04/21/2021	06/30/2023
3.07	HIGHWAY SYSTEMS - TRAFFIC SIGNAL TIMING	04/21/2021	06/30/2023
3.08	HIGHWAY SYSTEMS - INTELLIGENT TRANSPORATION SYSTEMS ANALYSIS, DESIGN, AND IMPLEMENTATION	04/21/2021	06/30/2023
3.09	HIGHWAY SYSTEMS - SIGNING, PAVEMENT MARKING, AND CHANNELIZATION	04/21/2021	06/30/2023
3.10	HIGHWAY SYSTEMS - LIGHTING	04/21/2021	06/30/2023
3.11	HIGHWAY SYSTEMS - SIGNALIZATION	04/21/2021	06/30/2023
3.12	HIGHWAY SYSTEMS - UNDERWATER ENGINEERING INSPECTION	04/21/2021	06/30/2023
6.01	WATER AND SANITARY SEWER SYSTEMS - WATER DISTRIBUTION AND SANITARY SEWAGE COLLECTION AND TRANSMISSION SYSTEMS	04/21/2021	06/30/2023
6.02	WATER AND SANITARY SEWER SYSTEMS - WATER AND SANITARY SEWAGE PUMPING FACILITIES	04/21/2021	06/30/2023
6.03	WATER AND SANITARY SEWER SYSTEMS - WATER AND SANITARY SEWAGE TREATMENT PLANTS	04/21/2021	06/30/2023
15.01	SURVEYING AND MAPPING - LAND SURVEYING	04/21/2021	06/30/2023
15.02	SURVEYING AND MAPPING - AERIAL PHOTOGRAMMERTY	04/21/2021	06/30/2023

Code	Category Description	Approval Date	Expiration Date
15.03	SURVEYING AND MAPPING - UNDERGROUND UTILITY LOCATION	04/21/2021	06/30/2023
15.04	SURVEYING AND MAPPING - HYDROGRAPHIC SURVEYS	04/21/2021	06/30/2023
16.00	GENERAL CIVIL ENGINEERING	04/21/2021	06/30/2023
17.00	ENGINEERING CONSTRUCTION MANAGEMENT	04/21/2021	06/30/2023

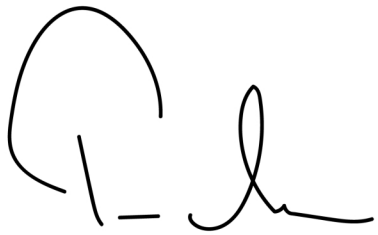
Approved By
Technical Certification Committee
Miami-Dade County

State of Florida

Woman & Minority Business Certification

F.R. Aleman and Associates, In

Is certified under the provisions of
287 and 295.187, Florida Statutes, for a period from:
11/12/2021 to 11/12/2023



J. Todd Inman
Florida Department of Management Services

Department of MANAGEMENT SERVICES
Office of Supplier Diversity

Office of Supplier Diversity
4050 Esplanade Way, Suite 380
Tallahassee, FL 32399
850-487-0915
www.dms.myflorida.com/osd

Florida Department of Transportation

RON DESANTIS
GOVERNOR

605 Suwannee Street
Tallahassee, FL 32399-0450

JARED W. PERDUE, P.E.
SECRETARY

September 19, 2022

Yvette Aleman, President
F.R. ALEMAN & ASSOCIATES, INC.
10305 NW 41st Street, Suite 200
Doral, Florida 33178

Dear Ms. Aleman:

The Florida Department of Transportation has reviewed your application for prequalification package and determined that the data submitted is adequate to technically prequalify your firm for the following types of work:

Group 3 - Highway Design - Roadway

3.1 - Minor Highway Design

Group 6 - Traffic Engineering and Operations Studies

6.1 - Traffic Engineering Studies
6.2 - Traffic Signal Timing
6.3.1 - Intelligent Transportation Systems Analysis and Design
6.3.2 - Intelligent Transportation Systems Implementation
6.3.3 - Intelligent Transportation Traffic Engineering Systems Communications
6.3.4 - Intelligent Transportation Systems Software Development

Group 7 - Traffic Operations Design

7.1 - Signing, Pavement Marking and Channelization
7.2 - Lighting
7.3 - Signalization

Group 8 - Survey and Mapping

8.1 - Control Surveying
8.2 - Design, Right of Way & Construction Surveying
8.3 - Photogrammetric Mapping
8.4 - Right of Way Mapping

Group 10 - Construction Engineering Inspection

10.1 - Roadway Construction Engineering Inspection
10.3 - Construction Materials Inspection

Group 13 - Planning

13.3 - Policy Planning
13.4 - Systems Planning
13.5 - Subarea/Corridor Planning
13.6 - Land Planning/Engineering
13.7 - Transportation Statistics

Your firm is now technically prequalified with the Department for Professional Services in the above referenced work types. The overhead audit has been accepted, and your firm may pursue projects in the referenced work types with fees of any dollar amount. This status shall be valid until June 30, 2023, for contracting purposes.

Approved Rates

Home/ Branch Overhead	Field Overhead	Facilities Capital Cost of Money	Premium Overtime	Reimburse Actual Expenses	Home Direct Expense	Field Direct Expense
228.44%^	58.50%^	0.520%	Reimbursed	No	2.54%	7.54%*

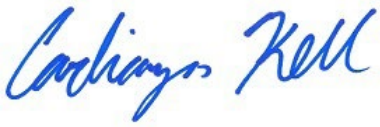
*Rent and utilities excluded from field office rate. These costs will be directly reimbursed on contracts that require the consultant to provide field office.
^For multi-year contracts, DOT has adjusted the overhead rates to mitigate the adverse impacts of Payroll Protection Program loan forgiveness. For information on the adjusted overhead rates, contact the district Procurement Office.

Published Fee Schedule
Mobile LIDAR $408 per hour

Per Title 23, U.S. Code 112, there are restrictions on sharing indirect cost rates. Refer to Code for additional information.

Should you have any questions, please feel free to contact me by email at carliayn.kell@dot.state.fl.us or by phone at 850-414-4597.

Sincerely,



Carliayn Kell
Professional Services
Qualification Administrator

Keisha Westbrook, PE
800 NW 62nd Avenue
Suite 490
Miami, FL 33126
kwestbrook@gfnet.com
305.908.4390