

DESIGN AND CONSTRUCTION ADMINISTRATION SERVICES FOR HOLLYWOOD BEACH UTILITY IMPROVEMENTS



RFQ # 10-5106/18-7098

JULY 6, 2020

We are proud to help our community advance. Each project is tremendously important to the people we call our neighbors."

- A. Dodie Keith-Lazowick, CEO

KEITH



City of Hollywood

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DESIGN AND CONSTRUCTION ADMINISTRATION SERVICES FOR HOLLYWOOD BEACH UTILITY IMPROVEMENTS

July 6, 2020



Alex Lazowick, PE, PMP Executive Vice President

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July 6, 2020

City of Hollywood City Clerk 2600 Hollywood Boulevard Room 221 Hollywood, FL 33020

RE: Design and Construction Administration Services for Hollywood Beach Utility Improvements #10-5105/18-7098

Dear Selection Committee Members,

Aging infrastructure is one of the reoccurring concerns across South Florida and much of the nation. We applaud the City of Hollywood Beach for taking a proactive approach to ensure its residents and visitors are delivered basic utilities that are designed and built with resilience in perspective. Managing these projects over the next 5 to 9 years for the different phases of the City of Hollywood Beach Utilities Improvements project is an important and complicated job. Over the last 6 decades, KEITH and our supporting consulting team partners, Nova Engineering and GFA International, have successfully completed the design, permitting, construction and certifications of numerous utility projects throughout the City of Hollywood and Broward County. We understand the many challenges faced with improving and maintaining infrastructure and we have demonstrated our ability to provide quality, functional designs, while maintaining budget parameters and expediting schedule requirements.

TEAM DESCRIPTION

KEITH has been most effective in our various roles because we have built a truly local team focused on the City of Hollywood projects. Our extensive related experience provides us with a real understanding and respect for the numerous stakeholders, consultants, contractors, and agencies that must work concurrently, effectively and in harmony for infrastructure improvement projects to culminate in success. We recognize the critical importance of effectively coordinating with City of Hollywood operation's staff to minimize impacts to operations, beginning with development of design alternatives/concepts through construction. In addition, KEITH is pleased to partner with local experts to ensure all aspects of this project are properly addressed. For this reason, we have teamed with Nova Consulting providing civil engineering support, including lift station design, sewer modeling, as well as environmental engineering and GFA International providing geotechnical engineering. Our team has the expertise, local knowledge, agency contacts, community relationships and desire to complete this project within the City's project budget and time-frame. These firms are all well-known and highly respected in their field of expertise. They also share the same level of passion and commitment you see within KEITH. We have all completed numerous projects of similar type and scale for and throughout The City of Hollywood.

COMMITMENT OF LEADERSHIP

Being a midsize closely-knit firm, we continually strive to provide a proactive and personalized approach for our clients. KEITH persistently emphasizes the firm's true commitment to service and exceed our clients' expectations. The leadership of KEITH is routinely involved with the day-to-day operations of the firm, as well as with extremely important clients such as The City of Hollywood. KEITH promotes a corporate philosophy to embrace and achieve the highest quality of professional standards for all services provided to our clients.

As the Principal-in-Charge and President, I, Alex Lazowick, PE, PMP hold the responsibility for the overall leadership of the Team, ensuring sufficient resource allocations and the corporate commitment to guarantee responsive service and a work product that meets the highest professional standards. The success of all City of Hollywood projects is a matter of pride to KEITH and our Team. It has always been my personal goal to maintain the integrity of KEITH, as was established by founder, Bill Keith, who engaged his life and reputation to working in and for The City of Hollywood. KEITH brings to you the personal commitment of myself, the firm, our long-standing reputation of accountability and no excuses, to exceed your expectations in getting the job done time and again.

COMMITMENT TO QUALITY

I will serve as the Principal-in-Charge for the Team. I am the President of the company have a breadth of experience managing performing and planning, design and construction administration for large complex utility infrastructure related projects for public and private facilities. Mr. Stephen Williams, Sr., PE will serve as the Project Manager. Mr. Williams has over four decades of experience and as our Vice President of Civil Engineering will lead the team throughout this effort. Collectively Mr. Lazowick and Mr. Williams have an excellent record of understanding the scope, establishing project

budgets/schedules and maintaining those budgets/schedules throughout construction. This experience and attention to detail, ensures quality workmanship, including clear design solutions that allow for expedited agency permitting and result in minimal contractor change orders that generally pertain to unforeseen existing conditions.

Our Design Quality Control/Quality Assurance Manager will be Mr. Thomas Donahue, PE. Mr. Donahue brings over 42 years of engineering expertise. Mr. Donahue's management approach includes stewardship, oversight, leadership, technical support and promotion of continuous quality control and improvement measures. Mr. Donahue will further be supported by a team of highly qualified task managers who specialize in a wide range of services anticipated for this project, most of whom have recent or ongoing design and construction management experience with infrastructure improvement projects throughout the City of Hollywood and South Florida.

COMMITMENT TO THE CITY OF HOLLYWOOD BEACH

KEITH provides a technically qualified team, with significant utility infrastructure experience, including extensive knowledge of local conditions, governing agencies, and the City of Hollywood Beach's unique and diverse community of stakeholders. KEITH is excited for the opportunity to serve the City with this Team, its combined knowledge of the City and this project's unique design characteristics. Moreover, our team not only understands the technical needs inherent in this type of project, but we understand the public needs, thus, we bring individuals who are adept at managing community relations. Our team brings together a cohesive group comprised of talented individuals with extensive expertise with upgrade and replacement of lift stations, force mains, upsizing gravity piping, domestic water modeling, pumping, distribution and HDD Intracoastal crossings that will approach this assignment with sensitivity, urgency and a positive can-do attitude with the ultimate goal of delivering a successful project for the City of Hollywood Beach and the residents who will benefit from this undertaking.

As a locally-based firm, we have a further personal vested interest in the success of these projects for the benefit of the City of Hollywood. Our local team has lived here before this project; we will live here during the project and will live here long after the project is completed. We recognize the direct correlation between the City's success and our own success. It is this important factor that drives our continued dedication to provide the highest quality of professional engineering services to the City of Hollywood.

The KEITH Team has provided engineering services within the City of Hollywood on over 40 projects, including the Hollywood Master Plan, Hollywood Circle, Hollywood North Beach Park, the Hollywood Broadwalk, Hollywood Arts and Cultural Center, Hollywood Boulevard Septic to Sewer Conversion and as a consultant under your general architectural and engineering services for the City.

With a longstanding history as one of the veteran civil engineering and consulting firms located in the County, KEITH is committed to exceeding the City of Hollywood's expectations for this contract. We have assembled a team of consultants that have worked together on many similar engineering project assignments and who provide relevant experience performing the exact type of work required under this RFQ. We respectfully submit the following information for your review, and we ask you for the opportunity to provide these engineering services to the City of Hollywood as the Prime Consultant.

Best Regards,

Alex Lazowick, PE, PMP President KEITH 301 E. Atlantic Boulevard Pompano Beach, FL 33060 954-788-3400 alazowick@keithteam.com

TAB 4 EXPERTISE OF STAFF

KEITH

Engineering Inspired Design.



TAB 4 EXPERTISE OF STAFF

KEITH was founded in 1998, by a surveyor, Mr. William "Bill" Keith, on the principals of his personal commitment to the improvement and wellplanned development of South Florida communities. As a multi-disciplinary firm, KEITH provides holistic site development solutions. The firm has recently celebrated its 22nd anniversary and is comprised of a team of more than 170 professionals, each with the extensive working knowledge of local and regional utility projects spanning many decades.

KEITH is focused on solving multi-disciplinary challenges faced by its diverse client base. Our commitment to professionalism and strong project management has allowed us to play a key role in the development of Broward County's growing infrastructure. Our mission is to curate a tenacious team to develop innovative solutions that elevate and preserve the built and natural environments. The KEITH Team, as one of the pioneering multi-disciplinary firms in South Florida, is exceptionally qualified to provide surveying and



mapping, subsurface utility locating, utility coordination, civil engineering, landscape architecture, planning, urban design, construction management services and traffic and transportation design. Our team's familiarity with providing similar services through many municipalities across South Florida and relationships with local agencies and utility companies provides us with valuable insight into your project needs and requirements.

Our staff combines the technical experience of a diverse pool of professionals with an extensive working knowledge of local and regional projects, emphasizing governmental land development and re-purposing projects. This convergence of experience has resulted in the development of important relationships with key agencies. In addition, we have a tremendous database of knowledge and information regarding local past and ongoing projects; an invaluable asset for our clients. The professionals of the KEITH Team take great pride in our personalized and professional approach which results in a quality product and the continuous success of our undertakings.

PROJECT MANAGER'S QUALIFICATIONS and RELEVANT EXPERIENCE



Mr. Steve Williams, Sr., PE will serve as the Project Manager and direct contact person for this contract and KEITH commits Mr. Williams for the entire duration of the assignment. Mr. Williams is responsible for coordinating and managing all sub-consultant partners, as well as KEITH staff assigned to the project. He will ensure that all tasks are completed in a timely and effective manner, that proper communication and coordination are maintained and that all project activities are accurately documented. He will be involved in every aspect of the project - from design start-up through project closeout to ensure the highest quality project in the most responsive and timely manner.

Mr. Stephen Williams has been engaged in civil and transportation engineering design and construction in South Florida since 1970. Mr. Williams has served as

the record engineer for numerous transportation, utility, water management, municipal, aviation, recreation, roadway and land development (governmental, residential, mixed-use and commercial) projects in South Florida. These include projects at Florida's Turnpike, Miami International and Fort Lauderdale-Hollywood International Airports and multiple projects for the local municipalities, school districts and universities. Projects have included roadway and site engineering design and analysis (paving, grading, drainage, water and sanitary sewer design and construction administration) for both private and governmental clients. He has served as the general municipal civil engineering consultant to cities of Oakland Park, Miramar, Plantation, Fort Lauderdale, Sunrise, Pompano Beach and Tamarac throughout his career. Notably, Mr. Williams developed a SWMM EXTRAN computer model for the 55,000-acre Indian River Farms Water Control District. Mr. Williams also serves as the Firm's Senior Quality Assurance /Quality Control (QA/QC) Officer and continuously monitors all projects for compliance with our established QA/QC Program.

Recent relevant KEITH projects include:

- BCWWS Water and WasteWater Services Continuing Contract
 - District 3A STEP Area 3A-N Design and Construction
 - District 1 STEP Area 1-G
 - District 3A STEP Area 3A-H
 - District 3A STEP Area 3A-E1 & E2
 - District 3A STEP Area 3A-D
 - District 3A STEP Area 3A-L1
 - District 3A STEP Area 3A-B
 - District 3A STEP Area 3A-F1
 - District 1 STEP Area 1-B
 - 100898 Hillsboro Pines
 - District 1 STEP Area 1A
- Professional Consultant Services for Fort Lauderdale-Hollywood International and North Perry Airports, Utilities and Pavement Projects
 - FLL 16" West Watermain Expansion Loop
 - FLL 16" North Perimeter Road Watermain Extension
 - FLL 8" Irrigation Transmission Pipe Extension Project (Greenbelt Irrigation)
 - FLL Utility Atlas Phase I and Phase 2
 - FLL Western Tennant Drainage Improvements
- FLL Runway 10R/28L, Parallel Taxiways and Crossfield Taxiways Utility Relocations
 - 16" Sewer Transmission Force Main (East Perimeter Rd / Tunnel and Bridge Structures)
 - 16"-12" Sewer Transmission Force Main (T4 Apron Relocation)
 - 24" Water Transmission Main (East Perimeter Rd / Tunnel and Bridge Structures)
 - 24" Water Transmission Main (South Perimeter Road / FEC Spur line)
 - 24" Water Transmission main (West Perimeter Road / Westside Development)
 - 24"- 16" Water Transmission Main (North/NorthEast Terminal 4 /Exit Roadway Connector)
 - 8" Water Main Loop (MSE Wall/BCAD Trailer Complex)
 - 8" 12" Water Main Loop (Westside Development / Vault)
 - 8" Gravity Sewer Main (Westside Development / Vault)

Steve has an excellent record of not only establishing project budgets and schedules, but also puts forth the necessary effort ensuring the budgets and schedules set in place are maintained and met throughout the life of the project. He consistently provides clear design solutions with quality control assurance. His attention to detail allows for expedited agency permitting with minimal contractor change orders, as a result. An example of his proactive management and leadership can be showcased through the Pompano Beach Boulevard Water Man Design project, which Mr. Williams served as the Project Manager for the civil engineering design associated with this project. The design involved the replacement of approximately 2,200 linear feet of existing universal water main pipe located along the east side of Pompano Beach Blvd from Atlantic Blvd north to NE 5th Street, which included utility investigation/ coordination, water main design, final construction plans, permitting and construction administration services.

He was also the Project Manager for the recently completed design, permitting and construction of eight (8) separate utility relocation/up-grade packages, with over 19,000 linear feet of new 24"- 16" water main and 16"- 8" sewer transmission force mains along with four (4) separate utility demolition packages. These projects were fast tracked through all stages of execution, resulting in BCAD recouping over six months of critical schedule creep for the overall South Runway Program.

TAB 4 EXPERTISE OF STAFF



Alex Lazowick, PE, PMP, Client Service Manager, has worked closely with a number of organizations over the years. He is able to utilize the relationships he has built over his many years of experience in Broward County to effectively coordinate and expedite final certification packages through BCWWS, Broward County Environmental Protection and Growth Management Department (BCEPGMD), Florida Department of Environmental Protection (FDEP), Broward County Transportation Engineering Division (BTED), Florida Department of Transportation (FDOT) and all 31 municipalities within Broward County.

These are just some examples of Mr. Lazowick's project management approach which includes stewardship, oversight, leadership, technical support and

promotion of continuous quality control and improvement measures. He understands that public agency project oversight requires accountability that must be documented throughout the project and practiced by each of the team members. The key to a successful project management program is the acceptance of responsibility and accountability by the project/contract staff, and support from the client's management staff. Mr. Lazowick's strengths include his responsiveness to clients, his ability to direct and coordinate team members, his ability to think outside the box, his ability to manage projects within schedule and budget, and finally his desire to tackle challenging tasks.

In addition to his work life, Mr. Lazowick has given back by serving on numerous non-profit boards within Broward County and is currently serving on the Parks Foundation of Broward County. The general purpose of the Foundation is to serve as a volunteering and fundraising arm of the Broward County Parks and Recreation Division for the endowment of capital projects, and educational, recreational, and cultural community initiatives, by requesting, receiving, holding, investing, administering, granting and disbursing gifts of funds and property, and making expenditures to or for the benefit of the Parks. Mr. Lazowick recently helped the Foundation prepare, submit and win a thirty-thousand-dollar (\$30,000) grant to start a Naturescape Park with Quiet Waters Parks.







Tom Donahue, PE | Quality Control / Quality Assurance | KEITH

Mr. Thomas Donahue has more than 40 years of experience in civil engineering projects including 15 years in South Florida. His qualifications include engineering design, quality assurance/quality control management, planning and environmental studies. Mr. Donahue's comprehensive experience includes: residential, commercial and industrial development, site plans, airports, highways, environmental analysis, local, state and federal permitting, right-of-way plans, utility and military designs. Project management experience includes management of professional staff of engineers, landscape architects and CAD personnel, development of project scope of work, contract negotiations, budgets, scheduling, quality

control, oversight of resident inspectors and surveyors, review and processing of contractor's pay requests and client contact.



Dean Koggan, PE | Civil Design | KEITH

Mr. Koggan has 4 years of experience and has worked on the BCWWS Water Distribution, Wastewater & Storm Water Collection contract. Mr. Koggan has aided in the production and submittal of plans, several reports, as well as different in person inspections and cost estimations. Mr. Koggan has aided in the production and submittal of plans, several reports, as well as different in person inspections and cost estimations. Mr. Koggan's involvement in the private and public sector includes design for new development and redevelopment projects with associated drainage and utility design throughout South Florida. Mr. Koggan, while working with different professional engineers and city officials, has obtained the

necessary skills that qualify him as a great addition to the KEITH team.



Michael Cartossa, El | Civil Design | KEITH

Mr. Cartossa has 6 years of experience and has worked on the Water Distrubition, Wastewater & Storm Water Collection contract for BCWWS. Since 2012, he has worked on numerous land development projects in both the private and public sectors. Mr. Cartossa is experienced in performing due diligence, site planning, civil engineering design, permitting, and project closeout. In addition to his engineering experience, Mr. Cartossa is proficient in a variety of software and programs including: AutoCAD, ICPR, Cascade, InfoWater and InfoSWMM.



Bill Arata, PSM | Director of Surveying Mapping | KEITH

Mr. Arata is an experienced Professional Surveyor & Mapper specializing in surveys for roadway design and right of way mapping. He has almost 40 years of surveying experience and worked for the Florida Department of Transportation for 35 years. During this time, he had direct responsibility for field surveys, creation of documents, sketches and maps for right of way acquisition. He has worked on most of the state roads from Monroe to Indian River Counties. Past experience includes the development of the Staff Hour Spread Sheet and data collection standards. While working primarily on FDOT projects, Bill successfully procured a continuing services contract with the City of Ft. Lauderdale and worked with the

City of Doral providing sketches and legal descriptions for easements and other issues. Possessing extensive experience with the Department allows him to successfully manage complex projects that require the highest degree of attention to detail from beginning to end. His career has demonstrated consistent professionalism with a thorough knowledge of Florida Statutes and Administrative Code and commitment to ethical conduct. Strong administrative capabilities will ensure the proper execution of proposals, contracts and invoices. Extensive technical knowledge will provide project deliverables meeting the demands of a project in the most efficient manner. Leadership and relationships are key to working with established professionals, guiding developing staff and effectively managing resources. These qualities will enable Bill to maintain existing clients.



Mark Mitchell | Director of Subsurface Utility Engineering | KEITH

As Director of Subsurface Utility Engineering for KEITH's Utilities Division, Mr. Mark Mitchell is responsible for scheduling and supervising field crews, conducting utility field meetings, utility records research, conflict analysis and determining if additional utility investigation is needed for assigned projects in South Florida. He completed projects from beginning phases to final delivery; which included preparing and submitting fee proposals, coordinating with clients, being able to setup projects for field crews and conducting field visits when trouble shooting is required; download and process collected data; performed quality control and finalize for delivery while keeping clients informed on a daily basis. His

experience also includes creating DTM's, Topo's, Tin Models, PNC's and Test Hole summary spread sheets. Mr. Mitchell provides a liaison between designers, utility agencies and owners on behalf of clients to provide utility coordination services, providing documentation, inter-coordination and maintenance of files of all activities for each utility agency.



Michael Phillips, PLA, ASLA, ISA Certified Arborist | Landscape Architecture | KEITH

Mr. Michael Phillips has over 32 years of experience in the field of Landscape Architecture. Since 1986, Mr. Phillips has conceptualized, hand sketched and CAD drafted construction documents in the public and private sector. He has been involved with projects ranging from schematic design through final completion, including plant selection, field inspections and project certification. He has produced landscape architecture construction documents that encompass tree survey and tree disposition plans, hardscape layouts and details, grading plans, planting plans, lighting plans and irrigation plans. Additionally, he is well versed in LEED requirements, 'Florida Friendly Landscaping' guidelines, Green Book Standards and

FDOT design standards and indexes.



Jonathan Weymouth, PE, | Construction Engineering Inspector | KEITH

Mr. Jonathan Weymouth has 28 years of experience in the planning, design, permitting and construction of heavy transportation, utility as well as all types of civil and environmental engineering projects. His work involves the supervision of engineering and technical personnel engaged in the design and construction of public and private sector improvements. Past projects include major transportation infrastructure projects such as airports, bridges, highways and roadways. This is in addition to civil land development, recreational facilities and environmental mitigation projects.



Steve High | Construction Engineering Inspector | KEITH

Mr. High has more than 46 years of experience in land development, project management, roadway and utility construction inspection. He has managed daily construction activities relating to earthwork operations, asphalt paving, utility relocations, concrete placement and drainage pipe installation. His experience includes preparing daily inspection reports on all activities, job progression, personnel and equipment, as well as interfacing with contractors on behalf of clients and accountability for job site coordination. His current capacity of Senior Construction Inspector requires monitoring and inspection of all phases

of construction work, as well as coordination with clients, contractors, public agencies, utilities and affected property owners. His experience includes project management and field engineering inspection experience for both public and private projects.

SUBCONSULTANT'S PROJECT TEAM

To deliver a world class project, a world class team must be assembled. For this project, KEITH is thrilled to have national and local partners of the highest caliber.



Nova was incorporated in 1995 as local minority, woman-owned (M/WBE) company. The firm has an established reputation for excellence in civil and environmental engineering. Nova has over 25 years of experience in the Nova Consulting environmental field on projects ranging from transportation to water resource management. Nova specializes in field supervision and investigations, groundwater and soil sampling, environmental assessment plans and reports, remedial action work plans, and permitting. Having worked with Department of Transportation and Public Works on numerous infrastructure projects

throughout Miami Dade County, Nova is adept with the procedural and regulatory requirements. Our staff consists of highly skilled Professional Engineers, Geologists, and Scientists that specialize in port facilities, waterfront infrastructure, water and wastewater, design criteria packages, detailed engineering design, environmental assessments and compliance, feasibility and environmental impact studies, permitting, and value analysis and life-cycle costing. Nova provides complete program management services for its clients including project planning and coordination, project definition, design and construction management, project controls (scheduling and cost estimating), document control, construction inspection, public outreach and commissioning.

Nova's experience in the City of Hollywood include:

- BCDPW subs to Atkins Port Everglades Marine Infrastructure Program CM and Scheduling
- BCWWS prime under the Qualified Vendors List for Environmental Services GW Modeling South **Regional Wellfield**
- BCAD FLL subs to AECOM Airport Expansion Program
- BCAD subs to Chen Moore On-Call Wastewater Services
- City of Fort Lauderdale subs to Hazen Sewer Design and Modeling



Founded in 1988, GFA is a privately held Florida S Corporation that has grown from 6 employees in 1988 to over 250 employees today. Our dynamic and experienced team is comprised of registered professional engineers and geologists', project engineers', certified industrial hygienists', environmental scientists; multi-discipline building code inspectors and plans examiners; as well as certified field and laboratory engineering technicians and support staff. Our senior staff has 500+ years of combined geotechnical engineering, environmental consulting, materials testing and inspection experience.

GFA's experience in the City of Hollywood include:

For the City of Hollywood:

City of Hollywood Salinity Monitoring Wells – Installation of 4 monitoring wells to depths of 220' below existing site
grade

Within the City of Hollywood:

- Hillcrest Golf & Country Club New Construction of 645 one and two-story single family homes
 - Client: Pulte Homes
 - Services: Geotechnical Engineering, Construction Materials Testing, Pre-Construction and Post-Construction Video Survey
- Loft Apartment Addition 40' elevation/loft apartment addition
 - Client: Coco Cosmetics, Inc.
 - Services: Geotechnical Engineering
 - Wawa (Griffin & 441 Plaza) New construction of a 6,119-S.F. gas station
- Client: LL Hart Development
 - Services: Geotechnical Engineering, Construction Materials Testing
- Seminole Hard Rock Oasis Parking Lot and Miro Corners Project New construction of storage site and paved parking
- o Client: Seminole Tribe of Florida
 - Services: Geotechnical Engineering, Construction Materials Testing
- Seminole Hard Rock SGA Warehouse New construction of a 100,000-S.F. warehouse
 - Client: Seminole Tribe of Florida
 - Services: Geotechnical Engineering
- Seminole Tribe of Florida Annex Building Pavement evaluations
 - Client: Seminole Tribe of Florida
 - Services: Geotechnical Engineering
- Nevada Street Parking Garage New construction of an 8-story, 128,542-S.F. parking garage
 - o Client: Kaufman Lynn Construction
 - Services: Geotechnical Engineering, Construction Materials Testing, Threshold Inspections, Post Tensioned Cable Elongation Monitoring
- Betty Mae Jumper Medical Complex New construction of a 2-story, 40,000-S.F. medical building
 - Client: Wantman Group, Inc
 - Services: Geotechnical Engineering
- Monroe House Residences New construction of a 5-story, multi-family residential building
 - o Client: Gusmel LLC
 - Services: Geotechnical Engineering
 - RaceTrac (Griffin Road) new construction of a RaceTrac Market
 - Client: RaceTrac Petroleum
 - Services: Geotechnical Engineering
 - Stirling Road Property Bridge Construction of a pre-fabricated vehicular bridge across a canal
 - o Client: RD Stirling, LLC
 - o Services: Geotechnical Engineering, Environmental Consulting, Construction Materials Testing
 - Twin Peaks Hollywood Remodel of an existing structure and new construction of a patio addition o Client: DMD Florida Restaurant Group B. LLC
 - Services: Geotechnical Engineering, Environmental Consulting
 - Toyota of Hollywood New construction of a 2-story dealership and 5-story parking garage with 405,586-S.F.
 - Client: Triangle Auto Center, Inc.
 - Services: Geotechnical Engineering, Construction Materials Testing, Threshold Inspections, Environmental Consulting
 - Port Everglades International Logistics Center New construction of a 146,000-S.F. warehouse with a 2-story with a
 - 10,000-S.F. office building and a 91,952-S.F. warehouse building with a 3-story, 34,992-S.F. office building O Client: Treadwell Franklin Infrastructure Capital
 - Services: Geotechnical Engineering, Geotechnical Engineering, Construction Materials Testing, Special Inspections
 - West Lake Commons New construction of a retail center
 - o Client: Stiles Construction Company
 - o Services: Geotechnical Engineering, Construction Materials Testing, Special Inspections
 - Liberty Park New construction of a 125,000-S.F., 6-story building and 3-story parking garage
 - Client: Fautz Associates
 - Services: Geotechnical Engineering, Environmental Consulting
 - Aquarius Condo new construction of a new pool
 - Client: Hillman Engineering
 - Services: Geotechnical Engineering



ALEX LAZOWICK, PE, PMP

President / Client Service Manager

Mr. Lazowick was introduced to civil engineering and construction by his grandfather, Mr. Bill Keith, founder of the firm. He is eager for the challenge to be the third family generation professional working to provide quality developments within the South Florida community. Mr. Lazowick has gained experience in civil engineering design projects including water, sewer and

drainage systems, roadway design, permitting, and construction administration services. He understands the importance of working together as a team to quickly identify and establish project goals and achieve successful results in the most expedient and cost effective manner. His qualifications include knowledge with AutoCAD Civil 3D, Navisworks, Revit, BIM, Microsoft Office, computer networking, and he possesses excellent communication skills.

RELEVANT PROJECT EXPERIENCE

City of Hollywood Boulevard Heights Septic-to-Sewer Conversion, Hollywood, FL: KEITH, as a subconsultant to EAC Consulting, is currently providing topographic surveying and subsurface utility engineering (SUE) services to the City of Hollywood for the following roadways: Taft Street from NW7th Terrace to the Turnpike, the alleyway between Taft Street and Roosevelt and N 66th Avenue and 64th Avenue, Moseley Street from N 65th Way to the Turnpike, N 64th Avenue from Moseley Street to Taft Street. Surveys include all surface features, including roadways, driveways, sidewalks, striping, surface utilities, etc. Storm and sanitary structures are carefully being noted with invert elevation, size, material and direction. Elevations are noted at intervals of approximately 100 feet, including intermediate changes in grade. Trees are being located and noted by trunk diameter and common name.

Fort Lauderdale-Hollywood International Airport (FLL), Fort Lauderdale, FL: Professional Consultant Services for Fort Lauderdale-Hollywood International and North Perry Airports, Utilities and Pavement Projects (Prime Consultant): KEITH is providing professional services for design, engineering and resident project representative (RPR) services during construction for airport utility and pavement projects, which include construction, rehabilitations and renovation activities. Some of the assigned projects include:

- 12" Westside Water Main Loop
- 16" Water Transmission Main North Perimeter Road
- FLL Runway 10R-28L Settle Monitor
- FLL 10L-28R Pavement Restoration
- FLL South Runway Drainage Mitigation
- FLL Short Term Traffic/Parking Improvements

BCWWS Water and Waste Water Services Continuing Contract, Broward County, FL: Broward County Water and Wastewater Services is implementing a new septic tank elimination program which consists of short sanitary sewer runs to serve small pockets of previously unserved properties. KEITH is providing engineering services for water distribution, wastewater collection and storm water collection systems. As the Prime consultant, KEITH is providing design and construction support services throughout the county related to the septic tank elimination program.

Broward County Water Reclaimed Water Plant Expansion, Broward County, FL: KEITH served as a subconsultant to Brown and Caldwell and was responsible for performing the pre-design, detailed design, bidding and permitting services, as well as engineering services during construction for the expansion of the existing reclaimed facility to increase its capacity.



Years of Experience 11 Education B.S. Civil Engineering, University of North Florida, 2010

Professional Registrations Professional Engineer, State of Florida, #78625 (2015)

Certified Project Management Professional (PMP), 2019

Professional Affiliations ASCE Member

FES Member

BIM Smart Foundation Member

BuildingSMART Foundation Member

Professional Certifications Troxler Nuclear Gauge

FDOT Workzone Traffic Control Intermediate Level MOT

30 Hour OSHA General Industry safety and health hazard recognition and prevention

ALEX LAZOWICK, PE, PMP Page 2

North Regional Wastewater Treatment Plant (NRWWTP) Load Center and Motor Control Centers Rehabilitation, Pompano Beach, FL: The scope of this project includes the design and engineering services during construction for the replacement of Load Centers 5 and 6 related Motor Control Centers (MCC), and replacement/rehabilitation of associated duct banks at the North Regional Wastewater Treatment Plan (NRWWTP). KEITH is providing surveying services for this project.

Fort Lauderdale-Hollywood International Airport (FLL) Expansion Program for Runway 10R-28L, Fort Lauderdale, FL: KEITH served as a subconsultant to ATKINS for this project. As the Civil Designer, Mr. Lazowick was responsible for the preliminary engineering and final design of all utilities, earthwork, grading and portions of the stormwater management system associated with the 8,000-foot runway expansion project. Project scope included both design and construction administration and civil engineering inspections to accept and certify the project.

Fort Lauderdale-Hollywood International Airport (FLL) Northern and Ravenswood Drainage, Fort Lauderdale, FL: With the construction of the new runway and decommissioning of the Westerly runway, the County was interested in developing an area of the vacated land of the Westerly runway into commercial lease parcels. In order to consider this, the overall drainage system of the Northerly runway needed to be evaluated with a proposed connection under I-95 to County owned property on the West side of I-95. KEITH performed hydraulic calculations, considered viable options in construction of such an interconnection and developed a detailed report with cost estimates of the various options to route and manage the existing and proposed storm-water run-off.

Fort Lauderdale-Hollywood International Airport (FLL) Terminal 2 Modernization - In 2012 T1, T2 and T3 served 9.4 million enplaning passengers, including 967,000 international enplaning passengers. Due to space constraints, too much concession space is present pre-security and not enough in present post security. Many passengers have long waits in zones with limited concession opportunities. There is insufficient food service seating and service type. The Terminal 2 Modernization project will have a centralized commercial zone that will take advantage of the linear footprint of the single-concourse terminal. The project will expand the terminal 37% in size allowing for more food and retail services. This is FLL's first full BIM projects underway. Mr. Lazowick is not only a project engineer on this project but he is also our BIM coordinator. He is responsible for relocating all civil landside utilities. He is also responsible for relocating all water and sewer that will be affected by the terminal expansion. These services included creating civil 3D drawings, coordinating in the BIM model, producing permitted construction plans and specifications.

Pompano Beach Fire Station No. 24 Design/Build, Pompano Beach, FL: KEITH, as a subconsultant partner to Currie Sowards Aguila Architects and West Construction, is currently providing engineering design and permitting, project coordination, surveying, landscape architecture and construction services for the replacement of the existing Pompano Beach Fire Station No. 24 located at 2001 NE 10th Street. The scope of work includes design and construction for this new two story, multi-bay fire protected building. New utilities and services along with new landscaping, 23 parking spaces, offices training room and an exercise room on the first floor.

City of Pompano Beach SR A1A Subsurface Utility Conversion, Pompano Beach, FL: The City of Pompano Beach is in the process of a major infrastructure improvement project to improve electric and communication utilities in the area of A1A from Terra Mar Drive to SE 2nd Street and from Nestor Street to the Hillsboro Inlet Bridge. This project involves hardening the overhead electrical lines along this corridor, which will lessen the risk of power outages during storms, while improving the aesthetics of the neighborhood. This project was completed in phases and is a partnership between the City, FPL, AT&T and Comcast. KEITH was responsible for Subsurface Utility Engineering and Surveying & Mapping, providing utility verification to assist the design engineer with precise locations of existing utilities. This effort allowed the design team to minimize potential conflicts for the proposed undergrounding of existing overhead facilities. KEITH also provided sketch and descriptions to dedicate areas for adjusted and/or newly installed appurtenances.



STEPHEN WILLIAMS, PE

Vice President of Civil Engineering / Project Manager

Mr. Stephen Williams has been engaged in civil and transportation engineering design and construction in South Florida since 1970. Mr. Williams has served as the record engineer for numerous transportation, utility, water management, municipal, aviation, recreation, roadway and land development (governmental, residential, mixed-use and commercial) projects in South Florida. These include

projects at Florida's Turnpike, Miami International and Fort Lauderdale-Hollywood International Airports and multiple projects for the local municipalities, school districts and universities. Projects have included roadway and site engineering design and analysis (paving, grading, drainage, water and sanitary sewer design and construction administration) for both private and governmental clients. He has served as the general municipal civil engineering consultant to cities of Oakland Park, Miramar, Plantation, Fort Lauderdale, Sunrise, Pompano Beach and Tamarac throughout his career. Notably, Mr. Williams developed a SWMM EXTRAN computer model for the 55,000-acre Indian River Farms Water Control District. Mr. Williams also serves as the Firm's Senior Quality Assurance /Quality Control (QA/QC) Officer and continuously monitors all projects for compliance with our established QA/QC Program.

RELEVANT PROJECT EXPERIENCE

City of Oakland Park, General Engineering Services, Oakland Park, FL: Mr. Williams served as the Project Manager, providing professional engineering services for projects identified in the City's Capital Improvement Plan, Stormwater Master Plan, Community Development Program and miscellaneous engineering services. Projects included design services for drainage/ stormwater management systems, water/wastewater utility systems, including related roadway, utility, environmental and permit related services; and landscaping.

City of Pompano Beach Miscellaneous Civil Engineering Services, Pompano Beach, FL: KEITH has served as the General Engineering Consultant for the City of Pompano Beach for over 16 years on an as needed basis. All services of the firm are utilized including planning, civil engineering, surveying, subsurface utility engineering, and landscape architecture.

Continuing Contract for Professional Engineering Services, Town of Southwest Ranches, FL: KEITH is providing civil engineering and civil engineering inspection and review services for this continuing services contract. Mr. Williams is serving as KEITH's contract manager responsible for providing professional engineering services for projects identified in the City's Capital Improvement Plan and miscellaneous engineering services.

FDOT and City of Naples, 36-Inch Raw Watermain, Naples, FL: Mr. Williams served as the Project Engineer. During the design of the new interchange at Golden Gate and I-75 in Naples, it was determined that the 36-inch raw watermain providing water to the main City of Naples water treatment plant would need relocation. Design of this major relocation effort in the I-75 area. The pipe and other components were designed around the proposed FDOT improvements and placed in areas that would allow the City easy access should maintenance issues arise.

NW 38th Street Drainage Improvements, Oakland Park, FL: Mr. Williams served as the Project Manager. Designed a stormwater management system that includes a pumping station to eliminate frequent flooding of low roadway segments. The roadway reconstruction included upgrading the water and sanitary sewer systems as well as new storm drainage lines.

Hallandale Fire Station No. 7 and EOC Headquarters, Hallandale Beach, FL: The City's new main fire rescue headquarters and emergency management facility were developed to achieve LEED Silver Certification and includes a 25,000-SF, two-story complex with four apparatus bays and



Years of Experience 48

Education B.S. Civil Engineering, University of Florida, 1997

Professional Registrations State of Florida Professional Engineer, #32090 (1982)

Professional Affiliations American Society of Civil Engineers (ASCE), Member

Florida Engineering Society (FES), Member

National Society of Professional Engineers (NSPE)

STEPHEN WILLIAMS, SR, PE Page 2

living quarters for up to 16 firefighters. In addition to on-duty fire rescue staff, the building will house the City's Fire Prevention Bureau including office space for fire inspectors, plans review and public education. KEITH provided civil engineering, landscape architecture and SUE services.

Hillsboro Blvd Directional Drill Water Main Across ICWWS, Deerfield Beach, FL: As the Prime Consultant, KEITH provided Surveying, SUE (Subsurface Utility Engineering) and Civil Engineering services (design/permitting/bidding assistance and construction management) for the proposed Water Main Improvements under/across the Intracoastal Waterway along the south side of Hillsboro Boulevard bridge. The project included the design of a new 12-inch water main to tie-in to the existing 10-inch water main on the west side of the Intracoastal Waterway (adjacent to The Cove shopping Center), connect to the east side of the Intracoastal Waterway by way of directional bore to tie back into the existing 10-inch main, and provide design criteria for properly abandoning in place the pre-existing 10-inch main under the Intracoastal Waterway.

Port Everglades A/E Services, Fort Lauderdale, FL: KEITH is providing landside civil engineering, surveying and subsurface utility engineering (SUE) services for this continuing services contract. Mr. Williams is serving as KEITH' senior project manager responsible for coordinating all design, surveying and SUE efforts. He is also the firm's liaison with the owner and other consultants. This contract is an on-call general services type contract, which is utilized to provide any array of civil engineering services to the client.

Pompano Beach Design/Build Pier Beach Parking Garage, Pompano Beach, FL: The new Pompano Beach Pier/Beach Parking Garage is located at the southeast corner of North Ocean Blvd. (S.R A1A) and NE 3rd Street on a 3.5-acre site. The new parking garage includes five stories, 625 parking spaces, speed ramp to facilitate access to higher levels of the garage and some retail space on the ground level fronting NE 3rd Street and the new Pier Street. As part of the designbuild team, led by Kaufman Lynn Construction, KEITH was responsible for Planning, Surveying, Utility Coordination/ Investigation, Civil Engineering, Landscape Design, Permitting and Construction Inspection of the project.

SR A1A Utility Conversion, Pompano Beach, FL: The City of Pompano Beach is in the process of a major infrastructure improvement project to improve electric and communication utilities in the area of A1A from Terra Mar Drive to SE 2nd Street and from Nestor Street to the Hillsboro Inlet Bridge. This project involves hardening the overhead electrical lines along this corridor, which will lessen the risk of power outages during storms, while improving the aesthetics of the neighborhood. This project was completed in phases and is a partnership between the City, FPL, AT&T and Comcast. KEITH was responsible for Subsurface Utility Engineering and Surveying & Mapping, providing utility verification to assist the design engineer with precise locations of existing utilities. This effort allowed the design team to minimize potential conflicts for the proposed undergrounding of existing overhead facilities. KEITH also provided sketch and descriptions to dedicate areas for adjusted and/or newly installed appurtenances.

Port Everglades Southport Phase IX, Fort Lauderdale, FL: KEITH is providing landside civil engineering, surveying and subsurface utility engineering (SUE) services for this two-phase project that includes the demolition of the existing Foreign Trade Zone facility and design and construction of a new container yard which will be a cargo handling facility and also includes ancillary buildings. Mr. Williams is serving as KEITH' senior project manager responsible for coordinating all design, surveying and SUE efforts. He is also the firm's liaison with the owner and other consultants.

Margate CRA General Engineering Consulting Services, Margate, FL: KEITH is currently providing civil engineering, surveying, utility locating, landscape architecture, traffic and environmental services for this continuing services contract for the City of Margate CRA. Mr. Williams is serving as KEITH's contract manager responsible for providing professional engineering services for projects identified in the CRA's Capital Improvement Plan and miscellaneous engineering services. Signature projects include: Colonial Drive Traffic Calming, Pedestrian Routing and Streetscape Improvements; Winfield Boulevard Traffic Calming and Streetscape Improvements.



THOMAS DONAHUE, PE

Director of Engineering / QA/QC Manager

Mr. Thomas Donahue has more than 40 years of experience in civil engineering projects including 15 years in South Florida. His qualifications include engineering design, quality assurance/quality control management, planning and environmental studies. Mr. Donahue's comprehensive experience includes: residential, commercial and industrial development, site plans,

airports, highways, environmental analysis, local, state and federal permitting, right-of-way plans, utility and military designs. Project management experience includes management of professional staff of engineers, landscape architects and CAD personnel, development of project scope of work, contract negotiations, budgets, scheduling, quality control, oversight of resident inspectors and surveyors, review and processing of contractor's pay requests and client contact.

RELEVANT PROJECT EXPERIENCE

Charlotte J. Burris Civic Center, Pompano Beach, FL: KEITH is currently providing civil engineering, permitting, construction administration and coordination and landscape architecture services for the 8,712-SF Charlotte J. Burrie Community/Civic Center location in Pompano Beach. The Center is designed with multipurpose meeting spaces for civic, social, and recreational activities, easy pedestrian access with ADA compliance, porte cochere entrance for inclement weather protection, and 48 vehicular and 20 bicycle parking spots. Interior floor plans feature reception area and administrative offices; small conference room; assembly spaces for classes or meetings; large multipurpose room to offer table seating for 125, or theater style seating for 250, as well as a performance stage; and a warming kitchen, restrooms, and storage areas.

City of Deerfield Beach Miscellaneous Engineering, Planning and Surveying Services, Deerfield Beach, FL: KEITH has served as the General Engineering Consultant for the City of Deerfield Beach for over 14 years. KEITH is providing on-going continuing serves as needed including engineering and surveying and mapping services to the municipality. KEITH also provided plan review services Some projects provided under these contracts include: Hillsboro Blvd and A1A "S-Curve" Beach Roadway, Drainage and Beautification (Phase I and II), Ocean Way Café Luna Improvement, Ocean Way Drainage, Infrastructure, and Beautification Improvements, Deerfield Beach Sand and Dune Stabilization Re-nourishment and Erosion Control, Deerfield Beach Boardwalk, Volleyball Courts and Artificial, Reef Improvements, Main Beach Parking Lot Improvement Design of Century Blvd/Hillsboro Blvd, Hillsboro Blvd Streetscape Improvements, SW 15th Street Roadway Improvements.

Tamarac Fire Station No. 78 Design/Build, Tamarac, FL: KEITH, as a subconsultant partner to West Architecture, provided civil engineering, permitting, traffic engineering, landscape architecture and construction services for the replacement of the existing Tamarac Fire Station 78 located at 4801 W Commercial Blvd in Tamarac, Florida. The 9,300 SF facility was constructed with LEED-certified products. As a Design/Build project, KEITH has been an active participant in determining costs and cost alternatives to keep overall costs within the anticipated budget.

Parkland Fire Station No. 42 Site Plan, Parkland, FL: KEITH is putting together a set of plans for Parkland Fire Station No. 42 Building Addition of additional 529.5 SF to accommodate additional dormitories. KEITH provided surveying, subsurface utility engineering (SUE), engineering design, permitting, utility coordination, and construction administration services; which included some offsite roadway, drainage and utilities improvements.



Years of Experience 40

Education B.S. Civil Engineering, Northeastern University, 1978

Professional Registrations State of Florida Professional Engineer, #60529 (2033)

Professional Affiliations National Association of Industrial and Office Parks (NAIOP) Member

Institute of Transportation Engineers, Gold Coast Chapter Member

American Society of Civil Engineers Member

THOMAS DONAHUE, PE Page 2

City of Pompano Beach CRA Miscellaneous Engineering and Surveying Services, Pompano Beach, FL: KEITH is currently providing general engineering and surveying and mapping services to the CRA on an as needed basis on this ongoing continuing services contracts. Some projects provided under this contract include: MLK Boulevard Study & Boundary Survey, MLK Boulevard Planning & Design, FEC Railroad Right-of-Way Study, Municipal Pier Restaurant Redevelopment, MLK Boulevard Street Vacation Services, Pompano Beach Boulevard Streetscape & Dune Revitalization, East Atlantic Boulevard/Pompano Beach Boulevard Surveys, Old Pompano Area Design Survey (North of Atlantic Boulevard), NW CRA Update Boundary Survey to Design Survey, MLK Boulevard Survey (I-95 to Dixie Highway), Right-of-Way Vacations & Dedications for NW CRA (NW 4th Street and NW 4th Avenue), Esquire Lakes Sign Survey, Professional Services for Mixed-Use Downtown Pompano Connectivity Plan, NW 6th Street Topographic Survey and Street Light Locations, NE 1st Street Boundary Survey, Pompano Springs Utility Easements, Ortanique Boundary Survey, NW Corner of NW 6th Avenue/MLK Boulevard Plat & Re-Plat, FPL Utility Easements, MLK Boulevard Update Survey, Professional Services for the Development of 731 Hammondville Road, Professional Services for MLK Boulevard Streetscape Improvements, FEC Flagler Corridor Landscape Easements, Pompano Beach Library Branch Relocation Survey, Rezoning of NE Corner of MLK Boulevard & NW 6th Avenue, Atlantic Point Boundary and Topographic Surveys, Trafficway Plan Amendment for MLK Boulevard/Hammondville Road, Bailey Hotel Boundary Survey, Old Pompano Area Water and Sewer Improvements for Future Development Restaurants, and MLK Boulevard Water Main Design.

Hallandale Fire Station No. 7 and EOC Headquarters, Hallandale Beach, FL: The City's new main fire rescue headquarters and emergency management facility were developed to achieve LEED Silver Certification and includes a 25,000 SF, two-story complex with four apparatus bays and living quarters for up to 16 firefighters. In addition to on-duty fire rescue staff, the building will house the City's Fire Prevention Bureau including office space for fire inspectors, plans review and public education. KEITH provided civil engineering, landscape architecture and SUE services.

Pompano Beach Fire Station No. 24 Design/Build, Pompano Beach, FL: KEITH, as a subconsultant partner to Currie Sowards Aguila Architects and West Construction, is currently providing engineering design and permitting, project coordination, surveying, landscape architecture and construction services for the replacement of the existing Pompano Beach Fire Station 24 located at 2001 NE 10th Street. The scope of work includes design and construction for this new two story, multi-bay fire protected building. New utilities and services along with new landscaping, 23 parking spaces, offices training room and an exercise room on the first floor.

MLK Boulevard Improvements, Pompano Beach, FL: KEITH was selected to provide professional engineering design and related services to the City of Pompano Beach and the Pompano Beach CRA for roadway improvements along MLK Boulevard (aka Hammondville Road) between NW 31st Avenue (turnpike ramp) and Powerline Road in accordance with the Phase II "Educational Corridor" improvements. The roadway improvements include incorporating new sidewalks, dedicated bicycle lanes and roadside swales along both sides of the roadway, roadway milling and resurfacing (with some widening and other miscellaneous improvements).

Dania Beach ROW Improvements, Dania Beach, FL: Relocation of a city water line and significant landscape improvements along US-1 from Stirling Road south to Sheridan Street; permitting through the City of Dania Beach and the Broward County Health Department; and site inspections to monitor water main tapping and installation and landscape installations.

Bayshore Beach Hotel, Fort Lauderdale, FL: The Bayshore Beach Hotel site is located on approximately 1.5 acres in Fort Lauderdale between Birch Road and Bayshore Drive. The project is envisioned to be a mixed-use hotel and commercial / retail development with an amenity deck including a restaurant, restaurant garden, pool, and upper and lower terraces. KEITH is serving as the prime consultant provided landscape architecture, civil engineering, SUE and construction/ program management services.

Boca Village, Boca Raton, FL: The Mixed-Use development included 57,845 SF of office, 33,700 SF retail and 21,293 SF of commercial space on 18.85 acres developed in two phases including design of new roads with over one mile of roadway, pedestrian facilities, bike lanes and a scenic bike path and analysis and design of transit bus routes for the site and the adjacent sites.



JAMÉ WILLS, PE, LEED AP ND

Project Manager

Mr. Wills is a professional engineer with five years of experience in design, permitting, and construction inspection. Mr. Wills' experience includes projects with Broward County, Miami-Dade County, and Pam Beach County and several private entities. Duties include design, drainage calculations, plans preparation, shop drawing review, responding to contractor's request for information, coordinating with plan reviewers and addressing comments.

Software experience includes Cascade 2001, ICPR, AutoCAD and Civil 3D.

RELEVANT PROJECT EXPERIENCE

City of Pompano Beach & CRA Miscellaneous Civil Engineering Services, Pompano Beach, FL: KEITH has served as the General Engineering Consultant for the City of Pompano Beach for over 16 years. Many of the project assignments have been in the redevelopment of roadways, parking facilities and utility infrastructure expansion and design. All services of the firm are utilized including planning, civil engineering, surveying, subsurface utility engineering and landscape architecture on these important municipal improvement projects. KEITH has played an integral part in the planning and coordination between CRA redevelopment projects and the City's capital improvement projects providing foresight on infrastructure upgrades and expansions.

City of Deerfield Beach City Hall Design/Build, Deerfield Beach, FL: KEITH, a subcontractor to Kenneth R Carlson Architect, P.A., is tasked the site plan, utility coordination, design, subsurface utility engineering, and civil engineering aspect of this project. The City of Deerfield was recently approved to start renovation on City Hall from the Capital Improvement Revenue Bond. This project is to provide professional services for the preparation of a design criteria package and associated service for City Hall renovations.

City of Fort Lauderdale Aquatic Center, Fort Lauderdale, FL: The Fort Lauderdale Aquatic Center is situated on a man-made pier which extends approximately 600 feet into the Intracoastal Waterway. The City of Fort Lauderdale and its CRA is looking to renovate the facility and ensure it meets aquatic competition requirements. KEITH's tasks include surveying, subsurface utility engineering, planning services, landscape architecture, and civil engineering. The intent of the project is to restore the Aquatic Center to remain as one of the icons of Fort Lauderdale Beach.

Pompano Beach Design/Build Pier Parking Garage Update, Pompano Beach, FL: As part of the design-build team, led by Kaufman Lynn Construction, KEITH was responsible for Planning, Surveying, Utility Coordination/Investigation, Civil Engineering, Landscape Design, Permitting and Construction Inspection of the project. Our professional services included extensive community and municipal outreach, complete topographic and boundary surveying, utility investigation of all public and private utilities within and adjacent to the project limits, complete civil design to adequately provide water/fire/sanitary sewer service and stormwater management design/grading of the site to ensure compliance with recently changed federal/state and local criteria, full landscape and irrigation design, permitting through all jurisdictional agencies and construction inspection and certification services.

City of Fort Lauderdale General Surveying Services, Fort Lauderdale, FL: KEITH provided general surveying and mapping services to the municipality on an as needed basis on this ongoing continuing services contract. Some projects provided under these contracts include: NE 27th Street ADA Parking Lot Topographic Design Surveys, ADA Compliance Design Surveys for Eisenhower Blvd and SE 17th Street, Las Olas Circle, Birch Road, SE 4th Street, SE 16th Avenue and SE 15th Avenue, and NW 4th Andrews Avenue to NW 1st Avenue, Peele Dixie Water Treatment Plant Engineering Design Surveys, Boundary and Topographic Surveys, SE 15th Street Boat Ramp Boundary Surveys, Hortt Elementary School ALTA/ACSM Land Title Survey, Mills Pond Park Boundary Survey, Croissant Park Athletic Field Staking and Final As-Built Sketch for the City's records, River Oaks (Lauderdale Marine Center) Specific Purpose Survey & Sketch and



Years of Experience 6

Education B.S. Civil Engineering, Florida International University, 2013

M.S. Engineering Management, Florida International University, 2017

Professional Registrations Professional Engineer, State of Florida, #85632 (2018)

JAMÉ WILLS, PE, LEED AP ND Page 2

Design, South Middle River Park Boundary Survey, Fort Lauderdale Executive Airport (FXE) Taxiway Golf Relocation FAA Survey Submittal Assistance, 17th Street Causeway Service Road Utility Designation and Mapping, and River Oaks Preserve Topographic Survey.

City of Pompano Beach Palm Aire, Pompano Beach, FL: KEITH has been providing civil engineering, landscape architecture and surveying / subsurface utility engineering services for the Palm-Air Communities since 2015. The development includes eight (8) building with pools and a club house, adjacent Palm Aire golf course, condominiums, and townhomes. Projects included: a drainage design that is incorporated into the Oaks Course West Basin, via the Misty Oaks Lakes within the Basin. Civil design also includes a sanitary sewer system to service the site and a loop combined water distribution system for domestic and fire services.

Tamarac Fire Station No. 36, Tamarac, FL: KEITH is providing professional services under West Architecture + Design, LLC for landscape architecture and civil engineering. KEITH will be focusing efforts towards arbor, paving, grading, drainage, water distribution and sanitary sewer, storm water, and permitting. The project site will remain active through the project duration.

Vincent Torres Memorial Park Improvements, Lauderdale Lakes, FL: KEITH is providing professional services under West Architecture for planning, civil engineering, and construction management services. The project includes design of a new pavilion with picnic table and benches, new water splash pad, concrete foot trail, replace fences at the tennis and basketball courts, and remove and replace a dry retention pond.

Siena at Palm-Aire - Stellar Homes; Broward County, FL: KEITH is providing civil engineering, surveying, planning, and landscape architectural serves for the town home community located on West Palm-Aire Drive in Pompano Beach. Services include but not be limited to, reviewing and assisting with the site plan layouts for 39 townhomes based on the plans provided as well as project research, document review, calculations, coordination, meetings with Stellar Homes Group, and City agencies.

Pompano Beach Fire Stations #52; Broward County, FL: As a subconsultant to West Construction, the scope of services provided by KEITH included on-site paving, grading, and drainage plans that meet the requirements of the regulatory agencies for proposed Fire Station building. The stormwater management system will address water quality treatment and water quantity storage. It is anticipated that the proposed drainage system will consist of a series of catch basins, pipes, swales, and/or dry retention areas. Exfiltration trenches may be proposed for water quality treatment. Typical sections and standard paving and drainage details and notes for the construction of the paving, grading, and drainage system are included. Soils percolation tests to satisfy regulatory agency requirements will be performed by others as required.

Pompano Beach Fire Stations #61; Broward County, FL: As a subconsultant to West Construction, the scope of services provided by KEITH included on-site paving, grading, and drainage plans that meet the requirements of the regulatory agencies for proposed Fire Station building. The stormwater management system will address water quality treatment and water quantity storage. It is anticipated that the proposed drainage system will consist of a series of catch basins, pipes, swales, and/or dry retention areas. Exfiltration trenches may be proposed for water quality treatment. Typical sections and standard paving and drainage details and notes for the construction of the paving, grading, and drainage system are included. Soils percolation tests to satisfy regulatory agency requirements will be performed by others as required.

Pompano Beach Fire Stations #114; Broward County, FL: As a subconsultant to Di Pompeo, the scope of services provided by KEITH included on-site paving, grading, and drainage plans that meet the requirements of the regulatory agencies for proposed Fire Station building. The stormwater management system will address water quality treatment and water quantity storage. It is anticipated that the proposed drainage system will consist of a series of catch basins, pipes, swales, and/or dry retention areas. Exfiltration trenches may be proposed for water quality treatment. Typical sections and standard paving and drainage details and notes for the construction of the paving, grading, and drainage system are included. Soils percolation tests to satisfy regulatory agency requirements will be performed by others as required.



DEAN KOGGAN, PE, LEED Green Associate

Engineer III

Mr. Koggan is a Senior Project Engineer with three years of experience working on various specialized engineering projects. Mr. Koggan has aided in the production and submittal of plans, several reports, as well as different in person inspections and cost estimations. Mr. Koggan's involvement in the private and public sector includes design for new development and

redevelopment projects with associated drainage and utility design throughout South Florida. Mr. Koggan, while working with different professional engineers and city officials, has obtained the necessary skills that qualify him as a great addition to the KEITH team.

RELEVANT PROJECT EXPERIENCE

BCWWS Water and Waste Water Services Continuing Contract, Broward County, FL: Broward County Water and Wastewater Services is implementing a new septic tank elimination program which consists of short sanitary sewer runs to serve small pockets of previously unserved properties. KEITH is providing engineering services for water distribution, wastewater collection and storm water collection systems. As the Prime consultant, KEITH is providing design and construction support services throughout the county related to the septic tank elimination program.

Broward County Water and Wastewater Services (BCWWS) District 3A Septic Tank Elimination Program (STEP) Area 3A-N: Prepare and develop a preliminary analysis report of options and their construction cost, as required for the site selection for the construction of a sanitary sewer lift station to service 36 customers in the project area. This included the preparation of schematic engineering plans to support the cost estimate for the different options.

Broward County Water and Wastewater Services (BCWWS) District 3A Septic Tank Elimination Program (STEP) Area 3A-L1: Prepare and develop construction document plans and their construction cost, as required to eliminate septic tanks and extend the public sanitary sewer to service 4 customers in the project area. This also included the preparation of schematic engineering plans and cost estimates for two additional alternative options to serve the project area.

North Regional Wastewater Treatment Plant (NRWWTP) Load Center and Motor Control Centers Rehabilitation, Pompano Beach, FL: The scope of this project includes the design and engineering services during construction for the replacement of Load Centers 5 and 6 related Motor Control Centers (MCC), and replacement/rehabilitation of associated duct banks at the North Regional Wastewater Treatment Plan (NRWWTP).

Perimeter Road 6" Force Main, Fort Lauderdale, FL: Mr. Koggan served as the Project Engineer involved in the certification, redesign and permitting for a 6" force main located along Perimeter Road on the south and west side of the airport. The force main was reconstructed in conjunction with the Fort Lauderdale International Airport South Runway Extension. Mr. Koggan was involved in certifying the construction of the force main to the governmental agencies and for assisting the contractor and Broward County Aviation Department (BCAD) staff with realignment of the force main due to field conflicts and the schedule of the runway extension. Mr. Koggan also provided construction engineering inspections to verify force main installation as per construction documents' standards and specifications, supported by weekly field reports.



Years of Experience 3

Education M.S. Civil Engineering, University of Florida, 2015

B.S. Civil Engineering, University of Florida, 2012

Professional Registrations State of Florida, Engineering Intern, #1100017162 (2012)

LEED Green Associate

Professional Affiliations ASCE Member

Professional Certifications FDOT Temporary Traffic Control - Intermediate

> Asphalt Paving Technician Level 2

> Asphalt Paving Technician Level 1



MICHAEL CARTOSSA, EI

Engineer III

Mr. Michael Cartossa has over six years of experience as a civil engineer. Since 2012, he has worked on numerous land development projects in both the private and public sectors. His background in land development includes both residential and commercial projects such as shopping aviation facilities, plazas, gas stations, banks, car dealerships,

restaurants and storage facilities. He is proficient in performing due diligence, site planning, civil engineering design, permitting, and project closeout. In addition to his engineering experience, Mr. Cartossa is proficient in a variety of software and programs including: AutoCAD, ICPR, Cascade, EPANET, MicroStation, MS Excel, MS Project, MS Office, Quattro Pro, and WordPerfect.

RELEVANT PROJECT EXPERIENCE

Broward County Water and Wastewater Services (BCWWS) District 3A Septic Tank Elimination Program (STEP) Area 3A-N: Prepare and develop a preliminary analysis report of options and their construction cost, as required for the site selection for the construction of a sanitary sewer lift station to service 36 customers in the project area. This included the preparation of schematic engineering plans to support the cost estimate for the different options.

Broward County Water and Wastewater Services (BCWWS) District 3A Septic Tank Elimination Program (STEP) Area 3A-L1: Prepare and develop 50% plans and their construction cost, as required to eliminate septic tanks and extend the public sanitary sewer to service 4 customers in the project area. This also included the preparation of schematic engineering plans and cost estimates for two additional alternative options to serve the project area.

North Regional Wastewater Treatment Plant (NRWWTP) Load Center and Motor Control Centers Rehabilitation, Pompano Beach, FL: The scope of this project includes the design and engineering services during construction for the replacement of Load Centers 5 and 6 related Motor Control Centers (MCC), and replacement/rehabilitation of associated duct banks at the North Regional Wastewater Treatment Plan (NRWWTP).

Fort Lauderdale/Hollywood International Airport (FLL) Stormwater Remediation Improvements, Fort Lauderdale, FL: This project includes stormwater remediation improvements at four separate areas to the FLL Master Stormwater Management System at the Fort Lauderdale/ Hollywood International Airport. The four separate areas are:

- FLL US1 Ponds 14 and 20 Equalizing Culvert addition: This improvement will link a new equalizing pipe between the pond areas (Pond US1-14 and Pond US1-20). Modification of the FDOT US-1 System by installation of a new pipe from Pond US1-20 to Pond US1-14 via directional drill under the entrance roads "donut" elevated ramp on MSE. The new pipe will be installed with invert elevations required to sufficiently provide positive drainage for the upstream stormwater management system.
- FLL US1 Ponds 22 and 25 Grading Improvements: This improvement includes modifications FDOT US-1 System by expansion of Pond US1-25 to utilize un-used area adjacent to the east side of the MSE wall, and if possible, by reduction of pond on the very westerly end in order to create additional future staging area. The reduction is dependent on ability to meet water quality and attenuation criteria in conjunction with implementation of the desired drainage improvements. Modification of the FDOT US-1 System by filling in Pond US1-22 to eliminate standing water caused by installation of pond outlet pipe higher than dry pond bottom elevation.



Years of Experience 6

Education B.S. Civil Engineering, Florida Atlantic University, 2012

Professional Registrations Engineer Intern (EI), State of Florida, #1100016973

MIKE CARTOSA, EI Page 2

North Regional Wastewater Treatment Plant (NRWWTP) Load Center and Motor Control Centers Rehabilitation, Pompano Beach, FL: The scope of this project includes the design and engineering services during construction for the replacement of Load Centers 5 and 6 related Motor Control Centers (MCC), and replacement/rehabilitation of associated duct banks at the North Regional Wastewater Treatment Plan (NRWWTP).

Parkland City Hall Building Department Wing Expansion, Parkland, FL: The proposed 3,000 square foot expansion will be done on the Building Department wing of City Hall. The project will include the addition of approximately 1,500 square feet of retention storage and 1,500 square feet of Building Department space. The proposed retention space will also include access to the existing parking lot for intake of documents, as well as, moving paper out for disposal (shredding) purposes. KEITH is the Prime consultant serving as Owner's Rep and providing planning, surveying, civil engineering and subsurface utility engineering services. The engineering design includes approximately 160 LF of gravity sewer, 230 LF of water main and restoration of the parking lot.

Fort Lauderdale/Hollywood International Airport (FLL) Terminal Modernization (1, 2 and 3) Roadway and Garage Wayfinding Signage, Fort Lauderdale, FL: KEITH, as a subconsultant partner to Gresham, Smith and Partners, is providing surveying and landside civil engineering services for 14 existing sign locations at Fort Lauderdale/Hollywood International Airport. KEITH obtained horizontal and vertical survey data for the 14 existing signages and also assisted in evaluating signage structure positioning and any requirements in pavement marking plans to meet County and State criteria.

Fort Lauderdale/Hollywood International Airport (FLL) Tenant Parcel Pond, Fort Lauderdale, FL: This project includes stormwater improvements north of Lee Wagner Boulevard and immediately east of the Naval Air Station Museum at the Fort Lauderdale/Hollywood International Airport (FLL). Broward County Aviation Department (BCAD) proposed to lease three tenant parcels for development. KEITH has identified that the reasonable development of these parcels will require the construction of a 4-acre dry detention pond with associated pipe and swale connections. These improvements are meant to supplement the stormwater management requirements for these parcels. It will still be necessary for each parcel to provide a reasonable measure of water quality and quantity storage capabilities with their planned development. A significant component of this project is the required removal of numerous trees. KEITH, as the prime consultant, is providing surveying, subsurface utility engineering, developing the construction drawings and cost estimates, pursue permitting of the projects, preparing the bid documents and providing all CEI/RPR services during construction.

Parkland City Hall Building Department Wing Expansion, Parkland, FL: The proposed 3,000 square foot expansion will be done on the Building Department wing of City Hall. The project will include the addition of approximately 1,500 square feet of retention storage and 1,500 square feet of Building Department space. The proposed retention space will also include access to the existing parking lot for intake of documents, as well as, moving paper out for disposal (shredding) purposes. KEITH is the Prime consultant serving as Owner's Rep and providing planning, surveying, civil engineering and subsurface utility engineering services. The engineering design includes approximately 160 LF of gravity sewer, 230 LF of water main and restoration of the parking lot.

Strata at Plantation, Plantation, FL: This is a mixed-use multi-family and commercial development across 16 acres comprised of 148 townhomes, clubhouse, amenities and offices designed as a luxurious, nature-conscious community. KEITH is providing planning, civil engineering, surveying, subsurface utility engineering and landscape architecture services. The engineering design includes approximately 3,300 linear feet of gravity sewer, 3,800 linear feet of water main, 4,700 linear feet of drainage pipe and exfiltration trench. Mr. Cartossa performed stormwater management calculations for the master plan, which consisted of approximately 24.6 acres, using Cascade and wrote the drainage report



JOHN WEYMOUTH, PE

Construction Manager

Mr. Jonathan Weymouth has 28 years of experience in the planning, design, permitting and construction of heavy transportation, utility as well as all types of civil and environmental engineering projects. His work involves the supervision of engineering and technical personnel engaged in the design and construction of public and private sector improvements. Past projects include major transportation infrastructure projects such

as airports, bridges, highways and roadways. This is in addition to civil land development, recreational facilities and environmental mitigation projects. The design/permitting/ construction experience that Mr. Weymouth brings to the team regarding key elements related to the Expansion of Runway 9L-27R Program at FLL will be highly valuable to BCAD. These elements include earthwork and embankments, stormwater management, concrete and asphalt pavements along with communication, potable water distribution and sanitary sewer collection systems. Additionally, he has extensive knowledge and effective experience coordinating with FEC, as well as with permitting and federal agencies such as FDOT and FAA. He is very familiar and fully qualified to implement and control the guidelines and requirements established by these agencies.

RELEVANT PROJECT EXPERIENCE

Fort Lauderdale-Hollywood International Airport (FLL) Expansion Program III (AEP III) Terminal 4 (T4) Expansion: Mr. Weymouth serve as utility construction manager for the underground improvements associated with 1.6 billion dollar replacement of T4 - Concourse H and the airfield apron. Work included replacement, relocation and upgrade of the domestic water and new sanitary sewer systems serving the new T4 - Concourse G and the new transmission main around the perimeter of T4.

Fort Lauderdale-Hollywood International Airport (FLL) Terminal 2 & 3 Modernization Program: Mr. Weymouth serve as construction manager for the underground improvements designed by Keith that will be installed within the next year. Work will include limited domestic water distribution and sanitary sewer collection serving Concourses D, E & F. Mr. Weymouth will work closely, as he has in the past, to insure the construction follows BCWWS's details and standards.

Broward County's Wiles Road Extension and Bridge Project: As Construction Project Manager, Mr. Weymouth oversaw the roadway and bridge over the Florida's Turnpike to complete the corridor between Powerline Road and Lyons Road. This project includes transmission water and sewer along Wiles and the directional bores under the Turnpike. He was responsible for the coordination of construction between the Broward County staff, Florida Power and Light, Southern Bell Communications as well as the two municipalities within the County's right-ofway.

City of Fort Lauderdale's River Gardens: As Construction Project Manager, he coordinated the construction of the underground improvements for a construction cost of \$2 million for the City of Fort Lauderdale's CRA Development project in the Sweeting Estates area. Responsibilities included construction management services on behalf of the City for the construction of the water, sewer and drainage improvements.

Florida Department of Transportation's District IV - Districtwide Utility Contract: Mr. Weymouth worked on behalf of FDOT as their Utility Coordinator on numerous projects in Broward, Palm Beach, Martin, St. Lucie and Indian River Counties. Responsibilities included contacting all utilities within project limits, scheduling meetings with all utility companies to obtain disposition of their existing and/or facilities, assistance in proposing solution to avoid



Years of Experience 28

Education B.S. Architectural Engineering, University of Miami, 1990

Professional Registrations Professional Engineer, State of Florida, #52802 (1998)

> Professional Certifications 10-Hour OSHA Safety Certification

JON WEYMOUTH, PE Page 2

conflicts with proposed improvement and preparing relocation agreements and reviewing relocation schedules during all phases of FDOT design.

City of Pompano Beach Design/Build Pier Beach Parking Garage, Pompano Beach, FL: The new Pompano Beach Pier/Beach Parking Garage is located at the southeast corner of North Ocean Blvd. (S.R A1A) and NE 3rd Street on a 3.5-acre site. The new parking garage includes five stories, 625 parking spaces, speed ramp to facilitate access to higher levels of the garage and some retail space on the ground level fronting NE 3rd Street and the new Pier Street. As part of the design-build team, led by Kaufman Lynn Construction, KEITH was responsible for Planning, Surveying, Utility Coordination/Investigation, Civil Engineering, Landscape Design, Permitting and Construction Inspection of the project.

SR A1A Improvements, Pompano Beach, FL: KEITH has provided comprehensive design, permitting, bid, and construction phase services associated with site improvements at Everglades Holiday Park. The improvements included renovation, construction and/or reconstruction of boat docks, boat ramps, parking, ancillary buildings, limited utility infrastructure, other minor park related amenities and improvements. This project has included LEED "Green" design principles. Project phases include: Conceptual Master Plan Design, Schematic Design, Design Development and Construction Documents.

City of Pompano Beach CRA Miscellaneous Engineering and Surveying Services, Pompano Beach, FL: KEITH is currently providing general engineering and surveying and mapping services to the CRA on an as needed basis on this ongoing continuing services contracts. Some projects provided under this contract include: MLK Boulevard Study & Boundary Survey, MLK Boulevard Planning & Design, FEC Railroad Right-of-Way Study, Municipal Pier Restaurant Redevelopment, MLK Boulevard Street Vacation Services, Pompano Beach Boulevard Streetscape & Dune Revitalization, East Atlantic Boulevard/Pompano Beach Boulevard Surveys, Old Pompano Area Design Survey (North of Atlantic Boulevard), NW CRA Update Boundary Survey to Design Survey, MLK Boulevard Survey (I-95 to Dixie Highway), Right-of-Way Vacations & Dedications for NW CRA (NW 4th Street and NW 4th Avenue), Esquire Lakes Sign Survey, Professional Services for Mixed-Use Downtown Pompano Connectivity Plan, NW 6th Street Topographic Survey and Street Light Locations, NE 1st Street Boundary Survey, Pompano Springs Utility Easements, Ortanique Boundary Survey, NW Corner of NW 6th Avenue/MLK Boulevard Plat & Re-Plat, FPL Utility Easements, MLK Boulevard Update Survey, Professional Services for the Development of 731 Hammondville Road, Professional Services for MLK Boulevard Streetscape Improvements, FEC Flagler Corridor Landscape Easements, Pompano Beach Library Branch Relocation Survey, Rezoning of NE Corner of MLK Boulevard & NW 6th Avenue, Atlantic Point Boundary and Topographic Surveys, Trafficway Plan Amendment for MLK Boulevard/Hammondville Road, Bailey Hotel Boundary Survey, Old Pompano Area Water and Sewer Improvements for Future Development Restaurants, and MLK Boulevard Water Main Design.

Nova Southeastern University (NSU) Student Housing Development, Davie, FL: KEITH is currently providing civil engineering and surveying services, as a subconsultant partner to RISE: Real Estate Company, for the development of new student residential facilities on the University's Davie campus at the northwest corner of Nova Road and College Avenue. This student housing development will bring approximately 600 beds to NSU's campus in response to existing student housing demand.

Town of Southwest Ranches Continuing Surveying and Engineering Services, Southwest Ranches, FL: KEITH is currently providing general engineering and surveying and mapping services to the Town on an as needed basis on these on-going continuing services contracts. Some projects provided under these contracts include: various drainage improvement projects, volunteer fire station relocation, SW 202nd Avenue Entranceway Signs, and Calusa Corners Park Phase 1.



STEVE HIGH Engineering Inspector II

Mr. Steve High joined the firm in 2008 and has many years of experience in land development, project management, roadway and utility construction inspection. He has managed daily construction activities relating to earthwork operations, asphalt paving, utility relocations, concrete placement and drainage pipe installation. His experience includes preparing daily inspection reports on all activities, job progression,

personnel and equipment, as well as interfacing with contractors on behalf of clients and accountability for job site coordination. His current capacity of Senior Construction Inspector requires monitoring and inspection of all phases of construction work, as well as coordination with clients, contractors, public agencies, utilities and affected property owners. His experience includes project management and field engineering inspection experience for both public and private projects.

RELEVANT PROJECT EXPERIENCE

Sheltair Hangar Expansion Pompano Beach Air Park (PMP), Pompano Beach, FL: The Holland Sheltair Aviation Group leases 40.8 acres from the Pompano Beach Air Park. KEITH was retained by SheltAir to develop and process site plan drawings, perform civil engineering design for water, sewer, paving and drainage improvements, survey, subsurface utility locations, landscape architecture and to provide construction phase services for the site improvements to support the addition of office/hanger buildings approximately 96,100 SF of floor area on 19.6 acres of their leased property. Mr. High was responsible for all CEI inspections throughout construction and certification.

City of Dania Beach Fire/Rescue Facility Station 93, Dania Beach, FL: A 3.3 acre municipal public safety facility, Mr. High served as Senior Engineering Inspector for the construction of the City of Dania Beach Fire Station and Rescue Facility. Work included earthwork, water and sewer main installation, paving & drainage landscaping, irrigation, pavement markings, as well as off-site drainage and roadway improvements. Mr. High provided all CEI services including checking material, installation observations, determination of quantities, daily logs, safety reports, compliance with specifications and coordination with contractor personnel.

Pompano Beach Reuse Water Main Installation, Pompano Beach, FL: Mr. High was the Senior Engineering Inspector for this municipal utility project which installed approximately one mile of 24" reuse water main through existing neighborhoods for the City of Pompano Beach. Work included installation of new pipeline construction, roadway reconstruction and paving, testing and restoration of damaged property. Mr. High provided all CEI services checking material and installation observations, determination of quantities, compliance with specifications and coordination with contractor personnel.

NW 59th Court, Fort Lauderdale, FL: Mr. High was the Senior Engineering Inspector for this municipal roadway improvement project for the City of Fort Lauderdale that extended along NW 59th Court from Powerline Road to NW 6th Way. Mr. High served as Project Manager/Inspector during this roadway construction and provided all CEI services checking material and installation observations, determination of quantities, compliance with specifications & coordination with contractor personnel. Daily reporting and logs were completed as well as certification packages for the respective governmental agency.

Pinnacle Village/ Powerline Road Turn Lanes (SR 945), Pompano Beach, FL: Mr. High was the Senior Engineering Inspector for this project, located in Pompano Beach, a 148-unit affordable housing multifamily project, which substantially enhanced the quality of life for residents of the community. Construction included off-site improvements, within the: FDOT right-of-way, traffic signal cable relocation, construction of new turn lanes, sidewalk, signs and pavement markings. Daily reporting and logs were completed as well as certification packages for the respective governmental agency.



Years of Experience 46

Education Broward College Palm Beach College

Professional Registrations FDEP Stormwater Management Inspector License #5696

> Professional Certifications Asphalt Paving Technician Level 1

Earthwork Construction Inspection, Level 1

> Concrete Field Technician, Level 1

ACI Concrete Field Testing Technician, Grade I

Troxler Nuclear Gauge

Final Estimates Level 1

FDOT Temporary Traffic Control - Advanced

Drilled Shaft Inspection

Auger Cast Pile Inspector's Course

IMSA Traffic Signals Level 1

10-Hour OSHA Safety Certification



WILLIAM A. ARATA, PSM

Director of Surveying & Mapping

Mr. Arata is an experienced Professional Surveyor & Mapper specializing in surveys for roadway design and right of way mapping. He has almost 40 years of surveying experience and worked for the Florida Department of Transportation for 35 years. During this time, he had direct responsibility for field surveys, creation of documents, sketches and maps for right of way acquisition. He

has worked on most of the state roads from Monroe to Indian River Counties. Past experience includes the development of the Staff Hour Spread Sheet and data collection standards.

While working primarily on FDOT projects, Bill successfully procured a continuing services contract with the City of Ft. Lauderdale and worked with the City of Doral providing sketches and legal descriptions for easements and other issues. Possessing extensive experience with the Department allows him to successfully manage complex projects that require the highest degree of attention to detail from beginning to end. Combined with a proactive attitude and strong customer focus will ensure the successful completion of projects for clients and stakeholders.

His career has demonstrated consistent professionalism with a thorough knowledge of Florida Statutes and Administrative Code and commitment to ethical conduct. Strong administrative capabilities will ensure the proper execution of proposals, contracts and invoices. Extensive technical knowledge will provide project deliverables meeting the demands of a project in the most efficient manner. Leadership and relationships are key to working with established professionals, guiding developing staff and effectively managing resources. These qualities will enable Bill to maintain existing clients and add new relations to further KEITH's growth in revenue and stature as an industry leader.

RELEVANT PROJECT EXPERIENCE

City of Pompano Beach Dixie Highway and Atlantic Boulevard Improvements, Pompano Beach, FL: As a subconsultant to Kimley-Horn and a part of the Pompano Beach GO Bond Projects, KEITH is providing surveying and subsurface utility engineering services for the Dixie Highway and Atlantic Boulevard roadway improvement projects in Pompano Beach. SUE services include performing up to (100) test holes to expose utilities to minimize any potential for damage and records research. KEITH is also performing updated topographic and right-of-way surveys to show all surface features suchas roadways, medians, curbing, sidewalks, driveways, surface utilities, and traffic striping. In addition, KEITH is conducting field reviews to locate new features and verify potential issues within the right-of-way lines.

Sistrunk Redevelopment, Fort Lauderdale, FL: KEITH is currently providing assistance to develop a 6 story mixed-use project with residential, commercial and a stand alone parking garage, also including a small church parcel located at the NW corner of NW 5th Street and NW 7th Terrance. KEITH is providing surveying, subsurface utility engineering, planning, traffic engineering, civil engineering, landscape architecture and construction / program management services. The project intends to place a heavy focus on the design of the public realm.

FDOT D4 SR 9 and Sunrise Boulevard, Broward County, FL: As a subconsultant to Bowman Consulting Group, LTD, KEITH is providing continuing surveying and mapping as well as subsurface utility engineering support services for FDOT District 4 for State Road 9 and Sunrise Boulevard.

Documents Supervisor, FDOT District 4: Supervised the analysis of title searches, writing of legal descriptions and creation of documents for the acquisition of right of way. Involved the training of subordinates, quality assurance of consultant submittals, monitoring project schedules.

I-75, Alligator Alley, Miccosukee Reservation, FDOT District 4: Through an administrative error the Department did not properly acquire the right of way for I-595 within the Miccosukee Reservation in western Broward County. Due to several issues the settlement this became a highly contentious settlement. Working closely with attorneys and surveyors from both the



Years of Experience 40

Education High School Diploma, Groveton High School 1978

Professional Registrations Professional Surveyor & Mapper, State of Florida #5082

Professional Affiliations Florida Atlantic Univeristy Professional Advisory Committee Member

Certifications Florida Certified Contract Manager, 2014

> FDOT Leadership Academy, 2005

WILLIAM ARATA, PSM Page 2

Department and the Tribe while coordinating with the US Department of Interior, Bureau of Indian Affairs Bill assured the legal descriptions, documents and maps acquired the necessary right of way with the approval of all parties. The final effort included the monumentation of the right of way.

Assistant Location Surveyor, FDOT District 4: Initial duties included the supervision of 4 FDOT survey crews, included the processing and review of field data. Directly involved in the development and testing of the 2nd generation of the Electronic Field Book. Assisted in the development of techniques and standards for automated data collection and transfer of data into MicroStation & Geopak files. The Department started the transition from in-house survey crews to consultant crews through Districtwide contracts. Duties included review of project scopes, negotiation of staff hour estimates, issue task work orders and the review of deliverables. Managed contracts ensuring they were properly funded, deliverables met scope and standards, payment of invoices Throughout this period maintained effective relationships in a pleasant and professional manner.

I-75, Miramar Pkwy to Pines Blvd, Broward County, FDOT District 4: Project Surveyor Bill was responsible for the survey of I-75. Duties included supervising the FDOT survey crews collecting topographic and drainage data, property & section corners, calculating the baseline of survey, locating the existing right of way; managed the aerial photogrammetry consultant through a task work order and coordinated activities with consultant surveyors on adjoining segments.

SR 90, Tamiami Trail Bridge, Modified Water Delivery, Miami-Dade County, FDOT District 6: As part of the Comprehensive Everglades Restoration Plan a 1-mile bridge was constructed replacing the existing roadway. The realignment of the road & bridge involved complex right of way transfers between the National Park Service, South Florida Water Management District and the Florida Department of Transportation. Bill was directly involved coordinating various activities between these agencies, consultant engineers and surveyors in a highly dynamic environment.

SR 5, Biscayne Blvd, Miami-Dade County, FDOT District 6: Coordinated the surveying activities for the development of a Formula 1 race course through downtown Miami and the Port of Miami. This was a particularly challenging project due to the accelerated delivery dates and level of detail needed along Biscayne Blvd, within the port and Bayside (a tourist destination) using Terrestrial Mobile LiDAR and aerial photogrammetry methods.

St. Johns River to Sea Loop Trail (SJR2C), Volusia County, FDOT District 5: As prime consultant, WGI was tasked with the design survey and production of right-of-way control survey maps for the along S Palmetto Ave. Existing right-of-way map files, existing plats and record surveys and documentation were utilized to calculate the existing baseline of survey and existing right of way to calculate a base map. Determination of calculations to be in error from the original files was also revised. The final deliverable by Bill was a digital submittal of the existing right-of-way and baseline of survey to the current FDOT and District 5 standards. Bill went on to provide the final QA/QC review of the right of way control survey map.

SR 7 Transit, Prospect & Copans Roads, Broward County, FDOT District 4: As prime consultant, WGI was tasked with the design survey along Prospect Rd (SR 7 to SR 840) and Copans Rd (SR 7 to Lyons Rd). Using existing right-of-way map files, existing plats and record surveys and documentation were utilized to calculate the baseline of survey and existing right of way. The topographic survey was acquired using Terrestrial Mobil LiDAR Bill was responsible for the daily management of multiple survey crews collecting data on the section corners, property corners, obscured topo, drainage structures, calculation of the existing right of way and baselines.



MARK MITCHELL

Director of Subsurface Utility Engineering

As Director of Subsurface Utility Engineering for KEITH's SUE/subsurface utility engineering division, Mr. Mitchell is responsible for the oversight of the day to day operations of all subsurface utility engineering projects. Mr. Mitchell's role allows him to review and determine if additional utility investigation is needed for assigned projects in South Florida. He completed projects from beginning

phases to final delivery; which included preparing and submitting fee proposals, coordinating with clients. Mr. Mitchell performs quality control and finalizes the delivery while keeping clients informed on a daily basis. His experience also includes creating DTM's, Topo's, Tin Models, PNC's and Test Hole summary spread sheets. Mr. Mitchell provides a liaison between designers, utility agencies and owners on behalf of clients to provide utility coordination services, providing documentation, inter-coordination and maintenance of files of all activities for each utility agency.

RELEVANT PROJECT EXPERIENCE

City of Deerfield Beach Miscellaneous Engineering, Planning and Surveying Services, Deerfield Beach, FL: KEITH has served as the General Engineering Consultant for the City of Deerfield Beach for over 14 years. KEITH is providing on-going continuing serves as needed including engineering and surveying and mapping services to the municipality. KEITH also provided plan review services Some projects provided under these contracts include: Hillsboro Blvd and A1A "S-Curve" Beach Roadway, Drainage and Beautification (Phase I and II), Ocean Way Café Luna Improvement, Ocean Way Drainage, Infrastructure, and Beautification Improvements, Deerfield Beach Sand and Dune Stabilization Re-nourishment and Erosion Control, Deerfield Beach Boardwalk, Volleyball Courts and Artificial, Reef Improvements, Main Beach Parking Lot Improvement Design of Century Blvd/Hillsboro Blvd, Hillsboro Blvd Streetscape Improvements, SW 15th Street Roadway Improvements.

FDOT District 4 Dixie Highway Flyover Design-Build, Broward County, FL: Originally this project was expected to follow the traditional Design, Bid, Build process, but was converted to a Design-Build. In order to meet the Department's aggressive schedule for advertisement, the bid package creation was placed on a fast track. Being part of the original design team providing Subsurface Utility Engineering and design survey services, Mr. Mitchell was contracted to provide additional Subsurface Utility Engineering and survey services required to help finalize the bid plans. It was his past experience and vast available resources that made it possible to meet the designer's needs and schedule and ultimately those of the Department.

City of Pompano Beach CRA Miscellaneous Engineering and Surveying Services, Pompano Beach, FL: KEITH is currently providing general engineering and surveying and mapping services to the CRA on an as needed basis on this ongoing continuing services contracts. Some projects provided under this contract include: MLK Boulevard Study & Boundary Survey, MLK Boulevard Planning & Design, FEC Railroad Right-of-Way Study, Municipal Pier Restaurant Redevelopment, MLK Boulevard Street Vacation Services, Pompano Beach Boulevard Streetscape & Dune Revitalization, East Atlantic Boulevard/Pompano Beach Boulevard Surveys, Old Pompano Area Design Survey (North of Atlantic Boulevard), NW CRA Update Boundary Survey to Design Survey, MLK Boulevard Survey (I-95 to Dixie Highway), Right-of-Way Vacations & Dedications for NW CRA (NW 4th Street and NW 4th Avenue), Esquire Lakes Sign Survey, Professional Services for Mixed-Use Downtown Pompano Connectivity Plan, NW 6th Street Topographic Survey and Street Light Locations, NE 1st Street Boundary Survey, Pompano Springs Utility Easements, Ortanique Boundary Survey, NW Corner of NW 6th Avenue/MLK Boulevard Plat & Re-Plat, FPL Utility Easements, MLK Boulevard Update Survey, Professional Services for the Development of 731 Hammondville Road, Professional Services for MLK Boulevard Streetscape Improvements, FEC Flagler Corridor Landscape Easements, Pompano Beach Library Branch Relocation Survey,



Years of Experience 20

MARK MITCHELL Page 2

Rezoning of NE Corner of MLK Boulevard & NW 6th Avenue, Atlantic Point Boundary and Topographic Surveys, Trafficway Plan Amendment for MLK Boulevard/Hammondville Road, Bailey Hotel Boundary Survey, Old Pompano Area Water and Sewer Improvements for Future Development Restaurants, and MLK Boulevard Water Main Design.

Fire Station #11, Pompano Beach, FL: As the field supervisor, Mr. Mitchell was tasked with providing ASCE Standard Quality Level B (Designating) and Quality Level A (Locating) Subsurface Utility Engineering services to assist the design engineer on accurately identifying the existing utilities in order to mitigate conflicts with the proposed design.

Fire Stations #24 and #61, Pompano Beach, FL: As the field supervisor, Mr. Mitchell was tasked with providing ASCE Standard Quality Level B (Designating) and Quality Level A (Locating) Subsurface Utility Engineering services to assist the City of Pompano Beach Project Manager on preparing the design build documents to be released for bid.

Fort Lauderdale-Hollywood International Airport SUE Services, Broward County, FL: As the field supervisor, Mr. Mitchell was responsible for providing ASCE Standard Quality Level B (Designating) and Quality Level A (Locating) Subsurface Utility Engineering services as a subconsultant on many projects for the airport such as Phase 1 Utility Atlas Update for South Runway Expansion, Phase 2 Utility Atlas for South Runway Expansion, Terminal 4 Fuel Line Relocation, 9R/27L Runway Expansion, Perimeter Road Water and Sewer Utility Improvements, Eastside Watermain Improvements, Westside Watermain Improvements, North Perry Airport HWO Wayfinding, Terminals 2 and 3, etc.

SR A1A Conversion, Pompano Beach, FL: As the field supervisor, Mr. Mitchell was tasked with providing ASCE Standard Quality Level B (Designating) and Quality Level A (Locating) Subsurface Utility Engineering services to assist the City of Pompano Beach Project Manager on preparing the design build documents to be released for bid.

Ft. Lauderdale-Hollywood International Airport, Broward County, FL: As the field supervisor, Mr. Mitchell was responsible for providing ASCE Standard Quality Level B (Designating) and Quality Level A (Locating) Subsurface Utility Engineering services as a subconsultant on many projects for the airport such as:

- Phase 1 Utility Atlas Update for South Runway Expansion of 9R/27L: (Sub-Consultant to RS&H) All work and deliverables were performed in accordance with Airport Circulars 150/5300-18B General Guidance and Specifications for Aeronautical Surveys. Mr. Mitchell was responsible for executing the designation, collection and depiction of all existing utility infrastructure to create the FLL utility atlas. Utilities were designated, mapped and labeled in accordance with the ASCE 38-02 guide lines.
- Phase 2 Utility Atlas Update for South Runway Expansion of 9R/27L: (Sub-Consultant to RS&H) All work and deliverables were performed in accordance with Airport Circulars 150/5300-18B General Guidance and Specifications for Aeronautical Surveys. Mr. Mitchell was responsible for executing the designation, collection and depiction of all existing utility infrastructure to create the FLL utility atlas. Utilities were designated, mapped and labeled in accordance with the ASCE 38-02 guide lines.
- Terminal 4 Fuel Line Relocation Design: (Sub-Consultant to EAC Consulting) Mr. Mitchell was responsible for
 executing the designation and identification of existing utilities along the proposed fuel alignment. Designated
 utilities were marked and identified via vacuum excavation to confirm locations. Utilities were designated,
 located, mapped and labeled in accordance with the ASCE 38-02 guidelines.
- 9R/27L Runway Expansion Lead Design Team: (Sub-Consultant to Atkins) Mr. Mitchell was responsible for executing designating and locating of existing utilities for the design of south runway. Multiple crews performed tasks associated with the identification, verification and delineation of utilities.
- Perimeter Road Water & Sewer Utility Improvements: (Sub-Consultant to EAC Consulting) Mr. Mitchell provided professional services associated with topography surveying and subsurface utility locations for the proposed upgrades of the potable water distribution and sanitary sewage transmission system along North Perimeter road (SW 34th Street), along South Perimeter Road at the FLL Airport.
- Eastside Watermain Improvements: (Sub-Consultant to EAC Consulting) Mr. Mitchell was responsible for executing the designation and location of existing utilities for the eastside Watermain improvements along perimeter road. Multiple crews performed tasks associated with the identification, verification and delineation of utilities.



Michael Phillips, PLA, ASLA, ISA Certified Arborist Senior Landscape Architect

Mr. Michael Phillips has over 32 years of experience in the field of Landscape Architecture. He has been involved with projects ranging from schematic design through final completion, including plant selection, field inspections and project certification. He has produced landscape architecture construction documents that encompass tree survey and tree disposition plans, hardscape layouts and details, grading plans, planting

plans, lighting plans and irrigation plans. Additionally, he is well versed in LEED requirements, 'Florida Friendly Landscaping' guidelines, Green Book Standards and FDOT design standards and indexes. Additionally, his input is key in site inventory and analysis, coordinating with our Survey Department to establish the location and species of trees and appraising the dollar value of such trees, which is paramount in the process of developing tree disposition plans followed by landscape plans that preserve existing trees and vegetation.

RELEVANT PROJECT EXPERIENCE

Broward County Water Reclaimed Water Plant Expansion, Broward County, FL: As a subconsultant to Brown and Caldwell, KEITH is performing a subsurface utility exploration at the proposed improvement sites within the plant and for proposed yard piping routing. Ground Penetrating Radar (GPR) will be used to designate, verify, and document location of existing underground facilities, including major piping, electrical conduits, and storm water facilities. Soft digs will also be conducted to verify the elevation of the designated underground facilities. KEITH will also assist with identifying potential conflicts and critical interconnects that require subsurface investigation.

North Regional Wastewater Treatment Plant (NRWWTP) Septage Receiving Facility Updating Pompano Beach, FL: Broward County Water and Wastewater Services required improvements for a Septage Receiving Facility as part of the Broward County Water and Wastewater Services Capital Improvements Program. Improvements are required to meet changes in space usage over the life of the complex consisting of new booster pumps, new backup power generator, new truck clean-out station, new building, and re-purpose the existing building aimed at decreasing costs. As a subconsultant to CDM Smith, KEITH provided Subsurface Utility Engineering (SUE), surveying, civil engineering, and landscape architectural services.

North Regional Wastewater Treatment Plant (NRWWTP) Load Center and Motor Control Centers Rehabilitation, FL: The scope of this project includes the design and engineering services during construction for the replacement of Load Centers 5 and 6 related Motor Control Centers (MCC), and replacement/rehabilitation of associated duct banks at the North Regional Wastewater Treatment Plan (NRWWTP). Mr. Phillips proved landscape architectural services for this project.

Hallandale Fire Station No. 7 and EOC Headquarters, Hallandale Beach, FL: The City's new main fire rescue headquarters and emergency management facility were developed to achieve LEED Silver Certification and includes a 25,000-SF, two-story complex with four apparatus bays and living quarters for up to 16 firefighters. In addition to on-duty fire rescue staff, the building will house the City's Fire Prevention Bureau including office space for fire inspectors, plans review and public education. KEITH provided civil engineering, landscape architecture and SUE services.



Years of Experience 32

Education B.S. Interior Design, Florida State University, 1985

Professional Registrations Registered Landscape Architect, State of Florida, #LA0001540 (1995)

ISA Certified Arborist #FL 9346A

Professional Affiliations American Society of Landscape Architects (ASLA), Member

United States Green Building Council - South Florida

MICHAEL PHILLIPS, PLA, ASLA, ISA Certified Arborist Page 2

Pompano Beach Design/Build Fire Station No. 24, Pompano Beach, FL: KEITH, as a subconsultant partner to Currie Sowards Aguila Architects and West Construction, is currently providing engineering design and permitting, project coordination, surveying, landscape architecture and construction services for the replacement of the existing Pompano Beach Fire Station 24 located at 2001 NE 10th Street. The scope of work includes design and construction for this new two story, multi-bay fire protected building. New utilities and services along with new landscaping, 23 parking spaces, offices training room and an exercise room on the first floor. A firefighter living area, dormitories, kitchen and day room will be located on the second floor.

Plantation Fire Station No. 1, Plantation, FL: KEITH is responsible for the development of the site plan and is currently coordinating with the design architect to develop the landscape and civil engineering for the project. The intention is to utilize xericscape and low maintenance materials that will provide aesthetics, as well as include CPTED principles for safety.

SE 9th Avenue Bridge Replacement/Culvert Rehabilitation, Pompano Beach, FL: KEITH served as the project landscape architect performing Site Analysis and Inventory assisting our Survey Department identifying Tree species along the half a mile between the culvert and the bridge on SE 9th Avenue in the City of Pompano Beach. KEITH was also responsible for elaborating the Streetscape concept and Landscape Plans to present to the City of Pompano, as well as the irrigation design that included drip irrigation to the planters with palms on the bridge and irrigation for the trees and sod along the roadway.

SE 9th Avenue Bridge Replacement/Culvert Rehabilitation, Pompano Beach, FL: KEITH served as the project landscape architect performing Site Analysis and Inventory assisting our Survey Department identifying Tree species along the half a mile between the culvert and the bridge on SE 9th Avenue in the City of Pompano Beach. KEITH was also responsible for elaborating the Streetscape concept and Landscape Plans to present to the City of Pompano, as well as the irrigation design that included drip irrigation to the planters with palms on the bridge and irrigation for the trees and sod along the roadway.

Tamarac Fire Station No. 78 Design/Build, Tamarac, FL: KEITH, as a subconsultant partner to West Architecture, is currently providing civil engineering, permitting, traffic engineering, landscape architecture and construction services for the replacement of the existing Tamarac Fire Station 78 located at 4801 W Commercial Blvd in Tamarac, Florida. The existing 6,000-SF building will be demolished and replaced with a new constructed 9,300-SF facility using LEED-certified products. As a Design/Build project, KEITH has been an active participant in determining costs and cost alternatives to keep overall costs within the anticipated budget. Mr. Phillips oversaw the design of the landscape and irrigation plans, the tree inventory and preparation of the tree disposition plan and was responsible for coordinating with the design/build team.

Youth Sports Complex, Pompano Beach, FL: KEITH is providing civil engineering and and landscape architecture services for the renovation of the existing Annie Adderly Gillis Park. This project will provide a facelift to this open space to create a large Urban Plaza while maintaining balance with ample green space. The park will serve to bring people in through the implementation of a stage area for events, interactive play opportunities, exercise equipment, improved lighting and adequate shading.

NE 3rd Avenue Roadway Improvements, Deerfield Beach, FL: This is a Joint Participation Agreement (JPA) roadway improvement project on NE 3rd Avenue between Sample Road and NE 48th Street will be widened from two existing lanes into a four-lane roadway with drainage, traffic signal, sidewalks and landscaping improvements. The work will also involve removal and relocation of existing trees, fences and FPL and AT&T facilities. Mr. Phillips is responsible for ensuring landscape architecture, as well as tree removals and relocations are being implemented, as per the approved construction documents. He coordinates site inspections, with our in-house landscape inspector and reviews and issues inspection reports.



Education

MS, Sanitary Engineering, Syracuse University, 1979

BS, Civil Engineering, Syracuse Engineering, 1977

Credentials | Registrations

Licensed Professional Engineer FL (43684) OSHA's HAZWOPER Supervisor/Management

Professional Organizations

American Society of Civil Engineers National Society of Professional Engineers Florida Engineering Society American Water Works Association

Expertise

Water and Wastewater Resources Hydraulic and Hydrologic Planning Project Management Program Management Independent Peer Review Pump Station Design Instrumentation & Control

Steven S. Eagle, PE

Sr. Vice President / Chief of Engineering

Mr. Eagle has more than 35 years of experience in the fields of civil and water resources engineering. His work includes detailed design, quality assurance/quality control, value engineering and overall project management and supervision for private and public-sector projects. He has completed civil engineering designs and performed construction management services for projects associated with infrastructure rehabilitation of public works, public utility facilities, and commercial and residential facilities entailing new construction and rehabilitation.

Relevant Experience

Pump Station Improvement Program, Miami-Dade Water & Sewer Department, FL. Under the terms of a consent decree, Miami-Dade will rehabilitate its wastewater treatment plants and sewer collection and transmission system. Under this program, the objective is to refurbish approximately 109 sewage pump stations to comply in meeting a nominal average pumping operating time of less than 10 hours per day. Nova was selected as the Program Managers to administer and manage the implementation of the PSIP initiatives. Mr. Eagle serves as Technical Director.

BCWWS Gravity Sewer Program Area 3AR, 3AS, 2G and Davis Isles, Broward County, FL. The BCWWS Septic Tank Elimination Program (STEP) aims to eliminate approximately 3,200 septic tanks by 2020. Nova is providing hydraulic analysis, engineering design, permitting and construction services for over 9,500 feet of gravity sewers and force mains, and associated pump stations for the purpose of septic tank elimination in residential neighborhoods throughout Broward County. Mr. Eagle served as Engineer of Record.

BCWWS Master Pump Stations 224 and 226 Improvements, Broward County, FL. This project consists of the rehabilitation of Master Pump Stations 224 and 226. Repairs involve well rehabilitation, replacement of piping, pumps, panels, electrical valves, and hatches. Nova was responsible for all phases of the planning, design and construction for these two large master pump station projects, including flow analysis and determination of peak flows considering I/I and RDII, engineering reports and BODR including equipment selection, process mechanical design, structural rehabilitation, MOT, and permitting with the Florida Department of Environmental Protection and Broward County Environmental Protection Department. Mr. Eagle served as Engineer of Record.

Wastewater Master Plan at Ft. Lauderdale-Hollywood International Airport, Broward County Aviation Department, FL. Nova is responsible for Wastewater Master Planning (Existing and Future Conditions) for FLL. The sewer model was updated and developed to analyze the sanitary sewer collection and transmission system of the entire airport. The model will also analyze the impact of the future airport expansion scenarios and projected passenger increase on the wastewater collection system. Nova prepared inflow hydrographs for 16 lift stations and analyzed future wastewater flow scenarios, including considerations for I&I and RDII associated with a 6-in/24hr design storm, for input into the InfoSWMM modeling software. As Design Director, Mr. Eagle participated in the development of inflow hydrographs for 16 lift stations and analyzed future wastewater flow scenarios using InfoSWMM.

Volume Sewer Customer Ordinance (VSCO), Town of Medley, FL. This project was part of a Consent Decree; Miami-Dade County passed and implemented an ordinance known as the "Volume Sewer Customer Ordinance". The ordinance required all publicly and privately owned and operated sanitary sewer collection and transmission systems to be evaluated and to identify and reduce infiltrations and inflow into the systems, and bring all pump stations into compliance. Mr. Eagle served as Technical Director.


Education

MS, Civil Engineering, University of Florida, 1974

BS, Civil Engineering, University of Florida, 1973

Credentials | Registrations

Licensed Professional Engineer, FL (18956), AL (35883-E), TX (81623), DC (PE908600)

Expertise

Project Management Water and Wastewater Master Plan Development Conservation Utility Finances Utility Operations Wastewater Treatment Plants Reclaimed Water Development Construction Management Commissioning Hydrologic Studies Utility Assessments

Harold V. Aiken, PE Senior Civil Engineer

Mr. Aiken has over 30 years of experience in water, wastewater, and storm water infrastructure programs. He has worked in both the public and private sectors on large municipal water resources, and water and wastewater capital programs, and environmental restoration programs. Mr. Aiken is a skilled facilitator, and as a member of the Broward County Technical Advisory Council, provides public outreach on technical issues, and overall water supply matters and regulations. His experience includes serving as Program Manager for the South Florida Water Management District Comprehensive Everglades Program, Project Design Manager for the Greater Houston Wastewater Program, General Manager of the West Coast Regional Water Supply (now Tampa Bay Water), and Chief of Permit Evaluation for the SWFWMD. Over his career, Mr. Aiken has lead development of six master plans and water use permitting of the largest wellfields in the state of Florida.

Relevant Experience

BCWWS Gravity Sewer Program Area 3AR, 3AS, 2G and Davis Isles, Broward County, FL. The BCWWS Septic Tank Elimination Program (STEP) aims to eliminate approximately 3,200 septic tanks by 2020. Nova is providing hydraulic analysis, engineering design, permitting and construction services for over 9,500 feet of gravity sewers and force mains, and associated pump stations for the purpose of septic tank elimination in residential neighborhoods throughout Broward County. Mr. Aiken serves as Sr. Project Engineer.

BCWWS Master Pump Stations 224 and 226 Improvements, Broward County, FL. This project consists of the rehabilitation of Master Pump Stations 224 and 226. Repairs involve well rehabilitation, replacement of piping, pumps, panels, electrical valves, and hatches. Nova was responsible for all phases of the planning, design and construction for these two large master pump station projects, including flow analysis and determination of peak flows considering I/I and RDII, engineering reports and BODR including equipment selection, process mechanical design, structural rehabilitation, MOT, and permitting with the Florida Department of Environmental Protection and Broward County Environmental Protection Department. Mr. Aiken serves as Sr. Project Engineer.

BCAD Fort Lauderdale-Hollywood International Airport (FLL) Wastewater Master Plan, Fort Lauderdale, FL. Nova is responsible for Wastewater Master Planning (Existing and Future Conditions) for FLL. The sewer model was updated and developed to analyze the sanitary sewer collection and transmission system of the entire airport. The model will also analyze the impact of the future airport expansion scenarios and projected passenger increase on the wastewater collection system. Nova prepared inflow hydrographs for 16 lift stations and analyzed future wastewater flow scenarios, including considerations for I&I and RDII associated with a 6-in/24hr design storm, for input into the InfoSWMM modeling software. Mr. Aiken was Sr. Project Engineer.

C-51 Alternative Water Supply, Palm Beach County, FL. Mr. Aiken prepared the independent analysis at the request of Palm Beach and Broward County into the feasibility of an Alternative Regional Alternative Water Supply. Because of limitation set by the SFWMD on new water supplies to the region, this alternative water supply reservoir is envisioned to captured stormwater typically lost to tide and make it available to the region in periods of extended draught. This analysis included evaluating the population and water demand projections for SE Florida for the next 50 years. This analysis was used to support the financial model for setting costs and rates.

CARLOS A. MERCADO, P.E., M.S.

Project Manager / Senior Geotechnical Engineer

SUMMARY OF QUALIFICATIONS

Mr. Mercado has over 26 years of Professional Engineering experience. As GFA's Delray Beach Branch Manager, Carlos is responsible for overseeing his staff, as well as all the work that is performed from the Delray office. Carlos's background as Geotechnical Engineer and Business owner provide for strong management skills and a valued approach to contract negotiation and execution. Mr. Mercado's project management experience includes educational facilities, industrial facilities, port, aviation, commercial facilities, multi-story condominiums, and infrastructure projects. Mr. Mercado has also managed numerous geotechnical, pile driving, ground improvement, post-tensioning, and materials testing projects, as well as performed pre and post-construction structure conditions surveys.

SELECT PROJECT EXPERIENCE

Sweetwater Pump Stations Phase IIB – Sweetwater, FL

Senior Geotechnical Engineer / Contract Manager

This project consisted of the new construction of two pump stations and a 36-inch force main pipe in the City of Sweetwater, Florida. GFA performed a Geotechnical Exploration consisting of two standard penetration test borings to depths of 25-feet below existing grade and four standard penetration test borings to depths of 15-feet below existing grade.

City of Hollywood Salinity Monitoring Wells – Hollywood, FL

Senior Geotechnical Engineer

This project included the installation of four deep salinity monitoring wells to depths of 220'. The 2-inch wells are used for monitoring of saltwater intrusion along the coast of Florida and aid the USGS and City Managers in managing the delicate water resources for the City of Hollywood. GFA services consisted of rotary sonic sampling using the 4 x 6 sampling system, construction of 2' diameter monitoring wells to 220', professional Geological report and monitoring, water conductivity logging of the completed bore hole, and CCTV camera of completed wells.

Creek Canal Retrofit – Miami, FL

Senior Geotechnical Engineer / Contract Manager

This project consisted of drainage improvements to SW 165th Avenue and SW 88th Street, SW 128th Court and SW 207th Terrace and Little Arch Creek Canal Retrofit. GFA performed a Geotechnical Exploration consisting of eight standard penetration test borings to depths of 20-feet below existing grade and four percolation tests to depths of 15-feet below existing grade. Mr. Mercado was responsible for overseeing all staff associated with the project, as well as overall project management.

Shenandoah Phase B – Miami Dade County, FL

Senior Geotechnical Engineer / Contract Manager

The project consisted of water main improvements in the Shenandoah Phase B area in Miami, Florida. This phase encompassed water mains between Coral Way and SW 16th Street, SW 17th Avenue and SW 22nd Avenue. The improvements consisted of approximately 46,900 linear feet of 6-inch water main replacements. GFA provided geotechnical engineering services which consisted of performing sixty-five (65) standard penetration test (SPT) borings to depths of 10-feet below existing grade.



YEARS OF EXPERIENCE

YEARS WITH THE FIRM 5

EDUCATION

- B.S., CIVIL ENGINEERING
- M.S., GEOTECHNICAL ENGINEERING, UNIVERSITY OF ILLINOIS AT URBANA CHAMPAIGN

LICENSES & CERTIFICATIONS

- STATE OF FLORIDA PROFESSIONAL ENGINEER #71707
- LICENSED GEOTECHNICAL ENGINEER – PUERTO RICO #11621

PROFESSIONAL ORGANIZATIONS & AFFILIATIONS

 AMERICAN SOCIETY OF CIVIL ENGINEERS

ESTELA G. LEÓN AGUILAR, P.E., M.S.

Professional Engineer / Geotechnical Department Manager

SUMMARY OF QUALIFICATIONS

Ms. Aguilar is a Professional Engineer specializing in the Geotechnical Engineering industry for GFA International, Inc. She has over five years of experience in the geotechnical engineering field. Her experience includes defining scope for geotechnical investigations, managing vibroflotation treatments, classifying soil samples recovered from test borings, performing pre-construction structure condition surveys, cutoff wall verification hole borings and testing, operation of a borehole optical televiewer, as well as vibration monitoring. She routinely provides settlement and pile capacity calculations, as well as foundation design and foundation recommendations.

As the Geotechnical Department Manager for the Delray Beach, Florida branch of GFA International, Inc., Ms. Aguilar is responsible for providing project management for geotechnical projects, overseeing and managing the geotechnical department staff, completing geotechnical exploration reports containing various recommendations for foundation designs, performing settlement and pile capacity calculations, defining scope for geotechnical investigations.

SELECT PROJECT EXPERIENCE

12" Transmission Water Main Improvements – Pahokee, FL

Professional Engineer / Geotechnical Department Manager

This project is to consist of 12-inch transmission water main improvements along East 1st Street, North Barfield Highway, Larrimore Road, and the subaqueous crossing of ditch along the bottom of the Herbert Hoover Dike within Army Corp jurisdiction in Pahokee, Florida. GFA performed a Geotechnical Exploration consisting of eleven standard penetration test borings to depths of 6 to 20 feet below existing grade and four asphalt cores within the roadway. Ms. Aguilar was responsible for coordinating the geotechnical field work, overseeing geotechnical staff, as well as the completion of the geotechnical report with foundation recommendations for the proposed construction.

Water System Improvements – Pahokee, FL

Professional Engineer / Geotechnical Department Manager

This project consisted of water system improvements along North Jupiter Avenue, Kismet Avenue, Garden Place, and connecting to East Main Street in Pahokee, Florida. GFA performed a Geotechnical Exploration consisting of seven standard penetration test borings to depths of 6 feet below existing grade and three asphalt cores within the roadways. Ms. Aguilar was responsible for coordinating the geotechnical field work, overseeing geotechnical staff, as well as the completion of the geotechnical report with foundation recommendations for the proposed construction.

SW Belle Glade Water Services Replacement Project Zone 1 – Belle Glade, FL *Professional Engineer / Geotechnical Department Manager*

This project is to consist of water services replacements in zone 1 along 4th Street, 8th Street, and 9th Street in Belle Glade, Florida. GFA performed a Geotechnical Exploration consisting of twelve standard penetration test borings to depths of 2, 3, and 4 feet below grade. Ms. Aguilar was responsible for coordinating the geotechnical field work, overseeing geotechnical staff, as well as the completion of the geotechnical report with foundation recommendations for the proposed construction.



YEARS OF EXPERIENCE

YEARS WITH THE FIRM 5

EDUCATION

- B.S., CIVIL ENGINEERING, CUM LAUDE, UNIVERSITY OF FLORIDA, 2012
- M.S., CIVIL/GEOTECHNICAL ENGINEERING, UNIVERSITY OF FLORIDA, 2013

LICENSES & CERTIFICATIONS

• STATE OF FLORIDA PROFESSIONAL ENGINEER #83307

PROFESSIONAL ORGANIZATIONS & AFFILIATIONS

• AMERICAN SOCIETY OF CIVIL ENGINEERS, PALM BEACH BRANCH, CHAIR OF SOCIAL

KEITH LICENSES



SUBCONSULTANT LICENSES





TAB 5 PREVIOUS PERFORMANCE

Engineering Inspired Design.

DØLL

RFI/SHOP DRAWINGS

KEITH shall review RFI's and shop drawings, samples and calculations, which the selected contractor is submits for review. This review will be for clarification and/or conformance with the design concept of the project and compliance with the information provided on the design drawings and specifications. Such review will not extend to methods, means, techniques, construction sequence(s) or procedures, or to safety precautions and related programs. KEITH shall also determine the acceptability, subject to CLIENT's approval, of substitute materials and equipment proposed by contractors. KEITH shall review and return all submittals and typically respond within 3 business days, in no circumstance will the response exceed 5 business days.





BCWWSSepticTankEliminationContinuingEngineeringServices - Water Distribution, Wastewater & Stormwater Collection

Project Location: Broward County, FL Project Completion: On-going



Client: Broward County Water and Wastewater Services Rolando Nigaglioni, PE 2555 W Copans Road, Pompano Beach, FL 33069 954-831-0882 RNigaglioni@broward.org

Project Description: Broward County Water and Wastewater Services is implementing a new septic tank elimination program which consists of short sanitary sewer runs to serve small pockets of previously unserved properties. As the Prime Consultant, KEITH is providing engineering services for water distribution, wastewater collection and storm water collection systems. The project is currently ongoing and within budget. KEITH is providing design and construction support services throughout the county related to the septic tank elimination program. Septic Tank Elimination Program Projects provided under this contract include:

• District 3A STEP Area 3A-N Design and Construction: This project entails approximately 36 septic tank eliminations and incorporation of a new gravity sewer system lift station in the City of Hollywood (District 3A-N) on SW 33rd Ave SW 32nd Terr SW 33rd Terr and the north half of Stirling Road (SR 848). This project was divided in two phases; preliminary analysis to select a lift station and the design/procurement/construction services to implement the preliminary analysis.

<u>Phase 1:</u> Preliminary analysis of options and their construction cost, as required for the site selection for the construction of a sanitary sewer lift station to service 36 customers in the project area. The work includes a community outreach program to interact with home owners for the site selection and securing of 30' x 30' easement for a sanitary sewer lift station.

<u>Phase 2:</u> The project entails the construction of approximately three thousand feet (3,000') of 8" gravity sanitary sewer main, 11 maintenance access structures, 1 pump station, one thousand two hundred feet (1,200') of 6" force main to the existing Stirling Road force main and associated service lines and cleanouts. The project has the potential to eliminate 36 septic tanks. New utilities for the project will be constructed within SW 33rd Ave SW 32nd Terr and Stirling Road.

- District 1 STEP Area 3A-H: This project entails the construction of approximately 400 LF of 8" PVC watermain, 2 maintenance access structures and associated service lines and cleanouts. The proposed project has the potential to eliminate approximately 50 septic tanks from the adjacent mobile home park. The proposed gravity sewer is to be located on Griffin Rd. and SW 24th Ave.
- District 3A STEP Area 3A-E1 & E2: This project will extend public sanitary sewer to properties located along SW 40th Ave. from an existing gravity manhole located at the Northeast corner of SW 40th Ave and SW 50th St in Dania Beach (Area 3A-E2). This project entails the construction of approximately 700 linear feet of 8" PVC, 2 sanitary sewer maintenance access structures and associated service lines and cleanouts. Additionally, this project includes a new sanitary sewer service lateral to connect the existing land use at 5020 S State Road 7 to the existing WWS gravity sanitary sewer system located on the abutting SW 45th Ave./SW 50th St. roadways (Area 3A-E1). The proposed project has the potential to eliminate 5 septic tanks.

BCWWS Septic Tank Elimination Continuing Engineering Services - Water Distribution, Wastewater & Stormwater Collection

Project Location: Broward County, FL Project Completion: On-going

- District 3A STEP Area 3A-D: The project entails the construction of approximately 5,000 linear feet of 8" PVC gravity sewer, maintenance access structures and associated service lines. The proposed project has the potential to eliminate several septic systems that currently serve businesses in an industrial park.
- District 3A STEP Area 3A-L1: This project will extend public sanitary sewer to properties located at the Northwest corner of Stirling Road and SW 25th Ave from an existing gravity manhole located in SW 25th Ave. The project entails the construction of approximately 295 linear feet of 8" PVC, 2 sanitary sewer maintenance access structures and associated service lines and cleanouts. The proposed project has the potential to eliminate 2 or 3 septic tanks and extend public sanitary sewer to 2 vacant lots.
- District 3A STEP Area 3A-B: This project entails the evaluation and selection of a sewer system and utility corridor to serve business properties in a boat marina entered exclusively through Marina Rd. from West SR84. This project has the potential to eliminate 5 septic tanks from the existing marina business west of Secret Woods Nature Center, Fort Lauderdale. This project includes the evaluation of 2 public sewer system design options.
- District 3A STEP Area 3A-F1: The project will extend public sanitary sewer to properties located along SW 22nd Ave., SW 22nd Terrace, SW 21st Ave./Anglers Rd., and SW 42nd St. from an existing gravity manhole located at the Northwest corner of SW 22nd Terrace and SW 42nd St. The project entails the construction of approximately 1200 linear feet of 8" PVC, 5 sanitary sewer maintenance access structures and associated service lines and cleanouts. In addition, the project also entails approximately 350 LF of 2"-4" low-pressure force main. The proposed project has the potential to eliminate 4 septic tanks.
- District 1 STEP Area 1-B: The project will extend public sanitary sewer to properties located along Commercial Boulevard and NW 37th Avenue from an existing gravity manhole located at the Northeast corner of property addresses 3833 Commercial Boulevard. The project entails the construction of approximately 1250 linear feet of 8" PVC, 3 sanitary sewer maintenance access structures and associated service lines and cleanouts. The proposed project has the potential to eliminate 7 septic tanks.
- 100898 Hillsboro Pines: This project entails the construction of approximately 800 F of 8" gravity sanitary sewer main, 3 maintenance access structures, and associated service lines and cleanouts. The project will eliminate 7 septic tanks from existing single-family residential neighborhood on NW 49th Lane and NW 75th Court in Unincorporated Broward County, where the new utilities for the project will be constructed.



Fort Lauderdale-Hollywood International Airport (FLL) and North Perry Airport (HWO) Utility and Paving Projects

Project Location: Fort Lauderdale, FL Project Completion: On-going



Client: Broward County Aviation Department (BCAD) Mr. Marc Gambrill, PE, Aviation Chief Development Officer 4104 Ravenswood Rd, Fort Lauderdale, FL 33312 954-359-2343 Mgambrill@broward.org

Project Description: KEITH serves as the Prime Consultant on this on-call contract providing civil engineering and auxiliary services for Utility and Paving projects throughout FLL and HWO. Some projects under this contract include:

- FLL T-4 East Apron Expansion Irrigation Connection
- FLL East Pond Irrigation Main
- FLL Westside Watermain Expansion loop
- FLL Utility Atlas & Miscellaneous Services
- FLL-AEP On-Call Services
- FLL 10R-28L Settlement Monitoring
- FLL North Runway Miscellaneous Repairs
- FLL Exit Ramp Milling and Overlay
- FLL North Runway 10L-28R Pavement Restoration
- FLL T4 Gate 504 Camera System Re-Design
- FLL NW 10 Street Temporary Access
- FLL North Runway Study Peer Review
- FLL FedEx North Runway Emergency Repair
- FLL GTA-1 and GTA-3 Improvements
- FLL Taxicab-Limo Hold Lot Communications Infrastructure



Hillsboro Blvd Directional Drill Water Main Across ICWWS

Project Location: Deerfield Beach, FL Project Completion: On-going



Client: City of Deerfield Beach Mr. Tom Good, Interim Assistant City Manager 200 Goolsby Boulevard, Deerfield Beach, FL 33442 954-480-4432 TGood@deerfield-beach.com

Project Description: As the Prime Consultant, KEITH provided Surveying, SUE (Subsurface Utility Engineering) and Civil Engineering services (design/permitting/bidding assistance and construction management) for the proposed Water Main Improvements under/across the Intracoastal Waterway along the south side of Hillsboro Boulevard bridge. The project included the design of a new 12-inch water main to tie-in to the existing 10-inch water main on the west side of the Intracoastal Waterway (adjacent to The Cove shopping Center), connect to the east side of the Intracoastal Waterway by way of directional bore to tie back into the existing 10-inch main, and provide design criteria for properly abandoning in place the pre-existing 10-inch main under the Intracoastal Waterway. The project is currently ongoing and within budget.



Bermuda Riviera Water Mains Improvement

Project Location: Fort Lauderdale, FL Project Completion: On-going



Client: City of Fort Lauderdale Mr. Jose Custodio, PE, MCE, Project Manager II 100 N Andrews Ave, Fort Lauderdale, FL 33301 954-828-5248 JCustodio@fortlauderdale.gov

Project Description: The City of Fort Lauderdale has identified the area within the residential neighborhood of Bermuda Riviera from NE 36th Street to NE 42nd Court, between State Road A1A and the Intracoastal Waterway as an improvement project. The upgraded water mains will be a looped system totaling approximately 22,630 LF of new 8-inch diameter water main pipe. The new system will connect to the existing water mains near state road A1A. These improvements involve upgrading the existing 6-inch diameter water mains one nominal size to 8-inch diameter, replacing existing 8-inch water mains with new, providing a looped system, and installing new fire hydrants. As the Prime Consultant, KEITH is currently providing civil design, surveying, subsurface utility engineering, permitting, bidding support and construction administration services. The project is currently ongoing and within budget.



Davie Blvd 18" Water Main Abandonment

Project Location: Fort Lauderdale, FL Project Completion: On-going



Client: City of Fort Lauderdale Public Works Engineering Mr. Axel Rivera, PE, PMP Project Manager II 100 N Andrews Ave, Fort Lauderdale, FL 33301 954-828-5124 Axrivera@fortlauderdale.gov

Project Description: The City of Fort Lauderdale has identified an existing 18" cast iron (CI) Water Main to be abandoned in-place running from I-95 east to Andrews Avenue. The purpose of this project is to transfer all services and water mains, currently connected to the 18" CI water main to be abandoned, to an existing 24" ductile iron pipe (DIP) water main and to an existing 8" water main. Extensions of the public water system are required to supply the residential community fronting Davie Blvd with the necessary domestic and fire service needs.

- 1,420 linear feet of 8" DIP along the south right of way line from SW 9th Avenue to the east approach of the New River bridge
- 1,255 linear feet of 8" DIP along the north right of way line of Davie Blvd. from SW 4th Street to SW 8th Terrace
- 1,154 linear feet of 8" DIP Water Main along the south right of way line from SW 4th Avenue to SW 8th Avenue

As the Prime Consultant, KEITH is providing surveying, subsurface utility engineering, civil design, permitting, and bidding services. The project is currently ongoing and within budget.



Port Everglades A/E Southport Phase IX-B Container Yard Stormwater Report

Project Location: Fort Lauderdale, FL Project Commencement: 2014 Project Completion: 2018



Owner: Broward County Port Everglades **Client:** BEA Architects, Inc. (Prime Consultant) Mr. Bruno Ramos, AIA, President (305) 461-2053 x122 Ber@beai.com

Project Description: This project entailed the design, permitting, and construction contract administration associated with the development of new cargo handling container yards. These container yards are integral to the expansion of Port Everglades' Southport Turning Notch. This 23 acre Southport IX-B, Project proposed to construct the paved laydown/storage yards for shipping containers or other port storage requirements. This involved the paving of the approximately 23 acre construction of an additional 1.2 A.C. dry retention area, connecting to the existing western dry retention areas west of the FEC-ICTF lease parcel. This connection is in lieu of the connections to the western retention areas and discharge offsite through the existing Southport discharge structures and the proposed Control Structure 6AC. An average of 5,000 linear feet of water main has been placed. Mr. Stephen Williams provided management oversight for the completion of the stormwater report.



Fort Lauderdale/Hollywood International Northern, Western and Ravenswood Drainage System Study

Project Location: Fort Lauderdale Project Commencement: 2013 Project Completion: 2015



Client: Broward County Aviation Department (BCAD) Mr. Carlos Hernandez, Project Manager (954) 359-2255 cahernandez@broward.org

Project Description: KEITH performed surveying, SUE and civil engineering services to prepare an extensive drainage study proposing to combining the North runway (10L-28R) drainage basin (244.25 ac) with the Ravenswood drainage basin (108.16 ac) located on the West side of Interstate-95, as a subconsultant partner working with RS&H. With the closure of runway 13-31, Broward County desired to utilize the residual property of that decommissioned runway that borders North Perimeter Road and Interstate-595 for an additional commercial lease parcel. This results in a significant loss in water management facilities for the North Runway 10L/28R as it increases the rainfall run-off in this basin. The primary challenge in this study was that the majority of the water quality treatment needed to be provided in the Ravenswood basin while the bulk of the discharge needed to route into Osceola Creek from the North runway basin. A previous evaluation had anticipated a pumped connection between these two basins but this study determined it was more practical and cost effective to utilize a 72 inch diameter gravity pipe connection between these basins that will be micro-tunneled under I-95. Numerous iterations with varying lay-out options were considered and all existing conditions, permitting limitations, existing planning and FAA criteria were taken into consideration.



Broward County District 1A Water Treatment Plant Expansion

Project Location: Broward County, FL Project Commencement: 2013 Project Completion: 2015



Client: MWH Americas, Inc Mr. Patrick VanBuren (916) 418-8522 patrick.c.vanburen@mwhglobal.com

Project Description: Broward County has started the implementation of an alternative raw water supply system to support continued growth in their supply area. The primary source of raw water for drinking water treatment in the County system is the Biscayne Aquifer. However, additional demands will need to be met by alternative raw water sources that need to be developed. The Floridan Aquifer (Floridan) is an alternative water source. The Floridan is an artesian water source located approximately 1,000 feet below ground surface that is more brackish than the Biscayne Aquifer. Reverse Osmosis (RO) is required to treat this water for public supply purposes and the product can be blended with treated water from existing lime softening plants.

The purpose of the survey is to locate the injection well and monitor well on the selected site provided by the Prime Consultant and perform a 500-foot radius survey around a point equidistant between the located wells. KEITH provided Topographic surveys for the 2 Floridian well sites and pipeline alignment routes to the plant, a topographic survey for the injection well, and utilized all available existing record utility as-built information provided by utility companies, from the most reliable source, to identify underground utilities.



John Knox Village Stormwater Management Plan

Project Location: Pompano Beach Project Commencement: 2017 Project Completion: On-going



Client: John Knox Village of Florida, Inc. Robert Scharmann, Executive Director 651 SW 6th Street Pompano Beach, FL 33060

Project Description: KEITH is providing professional services associated with the preparation of a Topographic and Boundary Survey, a Tree Survey, an Existing Utility Map, and the conceptual development of an overall Stormwater Master Plan for the John Knox Village property. Additionally the proposed services will include the Estimated Engineering Design Services for Phase 1 Projects. Scope of services consisted of engineering services for coordination and deliverable review, subsurface utility services, utility coordination, surveying services, stromwater modeling, permitting, and water distribution and wastewater collection plan.



Pompano Beach GIS Mapping Services Pilot Project

Project Location: Pompano Beach Project Commencement: 2011 Project Completion: 2011



Client: City of Pompano Beach Phyliss Korab, Assistant City Manager 100 West Atlantic Boulevard Pompano Beach, FL 33060

Project Description: KEITH was tasked to locate all water meters and valves, sanitary manholes and cleanouts, and storm drainage inlet structures and manholes with at least sub-meter grade GPS (Global Positioning System). The general limits of the project are from McNab Road (SE 15th Street) to the southerly edge of water of Lettuce Lake (just North of SE 8th Street) and from the easterly right-of-way of Federal Highway to the westerly edge of water of the Intracoastal Waterway. Lee Powers served as Project Surveyor for this GIS project and is currently working in this geographic area and progressing up to 1,550 data points. Once completed, KEITH will edit the files by moving the existing utilities, including any pipes, services or laterals that connect to the structure, to the true, GPS-verified location. The attribute data attached to each utility will remain unchanged.

F. EXAMPLE PROJECTS WHICH E	BEST ILLUSTRATE PROPOSED TEAM'S Q	UALIFICATIO	ONS FOR THIS CONTR	ACT	
	20. EXAMPLE PROJECT KE	Y NUMBER			
21. PROJECT NAME AND LOCATION (City and Stat	te)		22. YEAR COM	PLETED	
BCWWS Gravity Sewer Program Area 3AR, 3AS, 2G and Davis Isles Broward County, Florida			PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)	
			Sept. 2017- Ongoing	N/A	
	23. PROJECT OWNER'S INFORMATION			1	
a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT	OF CONTACT TELEPHONE NUMBER		
Broward County Water & Wastewater Services	Vilma C. Melendez, PE, M.Eng.		831-3288 ndez@broward.org		

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT (Include scope, size, and cost)

Overview and Scope of Work

These projects are part of the Broward County's Septic Tank Elimination Program (STEP) and include the following elements

Project	Туре	Pipe diam.	length (LF)	PS	#MH
Area 2G	GS	8" PVC	2,924	1	12
	FM	6" DIP	1,675		
Area 3AR	GS	8" PVC	451		2
	FM	6" PVC	320		
	WM	6" DIP	451		
Area 3AS	GS	8" PVC	614		2
	FM	6" PVC	480		
Davis Isles	GS	8" PVC	3092	1	12
		TOTAL	9,236	2	28

These projects consist of the design of neighborhood gravity sanitary collection systems in several Broward County locations, either new installations or existing extensions of sanitary sewer systems.

Nova was responsible for all project phases including planning, design and construction inspection

services for these four (4) sanitary gravity sewer systems.

Public Outreach

As part of the design effort Nova





Relevance to This Contract:

- Conceptual Design
- Public Outreach
- Collection Systems Engineering
- Construction and Commissioning Support Services
- Maintenance of Traffic (MOT)

Duration: 2016-Ongoing

Estimated Project Fee Actual Project Fee \$332,298

Key Personnel: Maria J. Molina, PE, ENV SP, Harold Aiken, PE, Steven S. Eagle, PE, Juan C. Prieto, PE, PMP, Jonathan Pappas, PE. Valeska Colmenares, Rafael Lazo, Carlos Ruiz

conducted field reconnaissance and resident contact and interviews to determine the location of existing septic tanks and private sanitary waste lines to realize the best location to set the proposed laterals in an effort to ease future connections to the public sewer system and reduce cost to the local residents.

Conceptual Design

Nova conducted field investigations of the corridors for pipe installation to determine any potential conflicts of the proposed



alignment with existing utilities. With this information, Nova prepared preliminary hydraulic engineering analyses and design calculations based on applicable standards and regulations to determine the preliminary pipe sizing and slope of the pipes to be installed.

Collections Systems Engineering

During design, Nova identified any and all potential conflicts and proposed and designed solutions consisting either of changes in alignment and/or of relocation of existing utilities. Nova prepared 30, 60 and 90% submittals including cost estimates and Maintenance of Traffic (MOT) drawings for review and comments by BCWWS. Nova finally issued the bid packages ready to be advertised by procurement.

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT					
20. EXAMPLE PROJECT KEY NUMBER					
21. PROJECT NAME AND LOCATION (City and State)			22. YEAR COMPLETED		
Wastewater Collection and Transmission Analysis, Planning and Rehabilitation			PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)	
Fort Lauderdale, Florida			2018 - Ongoing	N/A	
23. PROJECT OWNER'S INFORMATION					
a. PROJECT OWNER	b. POINT OF CONTACT NAME AND ADDRESS	c. POINT	c. POINT OF CONTACT TELEPHONE NUMBER		
City of Fort Lauderdale	Rohan Punit, PE	Office:	Office: 954-828-5859 Cell: 954-778-0368 RPunit@fortlauderdale.gov		

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT (Include scope, size, and cost)

Overview and Scope of Work

Nova is a key Subconsultant of the team responding to a Consent Order (CO) issued by the Florida Department of Environmental Protection (FDEP) Office of General Counsel (OGC) on September 29, 2017. Paragraph 6(j) of the Consent Order (CO) specifies that the City should have completed an evaluation of the capacity of the domestic wastewater collection and transmission system, including all existing force mains, gravity mains, and pump stations by May 29, 2019. The Consent Order further required the City to submit a Capacity Evaluation Report (CER) to FDEP summarizing the results of the capacity evaluation, specifically identifying any assets with insufficient capacity for current and projected demands over the next 10 years by July 29, 2019.

Capital Projects Planning/ Conceptual Design

Nova worked on the development and calibration of the Consent Order Wastewater Transmission (force main) Model (COWTM), using the Innovyze® InfoWater modeling software o assess the system's capacity and meet the FDEP requirements. The COWTM is a tool for assessing the flows and capacities of the City's force mains, and for identifying solutions to potential capacity issues. The COWTM can also be used as a tool for performing multiple "what-if" scenarios to assess the impacts of system operation changes. The COWTM includes all the City's owned force mains, wastewater lift stations, repump stations, and associated facilities.

In addition to the COWTM, Nova also worked on the development of gravity sewer models (using the Innovyze® InfoSWMM modeling software) for a selected number of Wastewater Collection Systems (Pump Station basin areas) also needed for the CER.

Nova worked on the development of a set of scenarios representing different conditions of the system to be used in the evaluation of the capacity of the Collection System, including all existing force mains, gravity mains, and pump stations. The scenarios developed correspond to dry and wet weather conditions for the years 2020 and 2030. Finally, Nova worked on the preparation of the documentation required by FDEP summarizing the findings of capacity of the wastewater system, and fulfilling the requirements paragraph 6(j) of the CO.

Based on the COWTM development and calibration, Nova also worked on formulating recommended improvements to overcome the capacity deficits that were identified.

To ensure proper procedures are followed in the future, Nova was part of the team that worked on the preparation of Business Processes and Standard Operating Procedures (SOP) for Allocation Approvals that outline the steps to be followed for issuing capacity letters to developers and process allocation approvals. These procedures were a result of Workshops with City officials to discuss the rules, regulations and current challenges in developing the capacity letters and outline a consented

Relevance to This Contract:

- Capital Projects Planning/ Conceptual Design
- Collections Systems Engineering
- Data Analytics and Processing
- Construction and Commissioning Support Services
- Visualization Services

Duration: 2018-Ongoing

Estimated Project Fee

Actual Project Fee \$381,619

Key Personnel: Maria J. Molina, PE, ENV SP, Harold Aiken, PE, Juan C. Prieto, PE, PMP, Catalina Lopez, EI, Carlos Ruiz, Rafael Lazo, Valeska Colmenares

Collection Systems Engineering



inflow hydrographs using three different components: base sanitary flow (BSF), groundwater infiltration (GWI), and rain-derived inflow and infiltration (RDII). GWI was estimated as a function of the diameter, total length, material, age of the gravity lines within the basin and the groundwater level. Sea level rise (SLR) and climate change were also considered when estimating GWI. RDII was estimated using the unit hydrograph RTK methodology.

Nova calibrated the COWTM for dry weather and wet weather conditions. The first step of calibration was a high-level calibration focused on flow match. The second step of calibration explicitly include pressure and flow comparisons. This task included the development of a Calibration Plan,

Shenandoah Phase B Miami Dade County, Florida

Client: CES Consultants Contact: Gustavo A. Silva, P.E., Project Engineer Address: 880 SW 145th Avenue, Suite 106, Pembroke Pines, Florida 33027 Telephone: (954) 613-4353 Year Complete: 2016





Description: The project consisted of water main improvements in the Shenandoah Phase B area in Miami, Florida. This phase encompassed water mains between Coral Way and SW 16th Street, SW 17th Avenue and SW 22nd Avenue. The improvements consisted of approximately 46,900 linear feet of 6-inch water main replacements. GFA provided geotechnical engineering services which consisted of performing sixtyfive (65) standard penetration test (SPT) borings to depths of 10-feet below existing grade. Field activities were summarized in the form of a Geotechnical Report, which included test procedures used, data collected, evaluation of subsurface soil conditions, and engineering recommendations for the proposed construction and site preparation procedures and imported fill requirements.

GFA Contract: \$12,883.00

Number of Change Orders: 0

GFA International, Inc.

Drainage Improvement Project Miami Dade County, Florida



Client: Miami Dade County Department of Transportation and Public Works Contact: Mr. Fernando Ramos Address: 111 NW 1st Street, 15th Floor, Miami, Florida 33128 Telephone: (305) 375-3909 Year Complete: 2019



Description: This project consisted of drainage improvements on SW 13th Street from SW 42nd Avenue to SW 40th Avenue, on SW 35th Street from SW 67th Avenue to SW 65th Avenue and on SW 77th Avenue from SW 2nd Street to SW 4th Street in Miami Dade County, Florida. GFA performed a Geotechnical Exploration consisting of six standard penetration test borings to depths of 20-feet below existing site grade and six exfiltration tests to depths of 15-feet below existing site grade. Field activities were summarized in the form of a Geotechnical Report, which included test procedures used, data collected, evaluation of subsurface soil conditions, and engineering recommendations for the proposed construction and site preparation procedures and imported fill requirements.

GFA Contract: \$10,847.39

Number of Change Orders: 0

GFA International, Inc.

CSA 7 12-Inch Transmission Water Main Improvements Palm Beach County, Florida



Client: Keshavarz & Associates, Inc. Contact: Ms. Deborah Fulgenzi Address: 711 N. Dixie Hwy., Suite 201, West Palm Beach, Florida 33401 Telephone: (561) 689-8600 Year Complete: 2019



FIGURE 2 - BORING LOCATION PLAN

Description: This project consisted of water main improvements in Pahokee, Florida. This phase encompasses water mains between East 1st Street, North Barfield Highway, Larrimore Road, and the subaqueous ditch along the bottom of the Herbert Hoover Dike within Army Corp jurisdiction. The improvements consist of +/-3800 linear feet of water main. GFA performed a Geotechnical Exploration consisting of eleven standard penetration test borings to depths of 6 to 20 feet below existing site grade. Field activities were summarized in the form of a Geotechnical Report, which included test procedures used, data collected, evaluation of subsurface soil conditions, and engineering recommendations for the proposed construction and site preparation procedures and imported fill requirements.

GFA Contract: \$9,200.00

Change Orders: 0

GFA International, Inc.

TAB 6 CURRENT AND PROJECTED WORKLOAD

Engineering Inspired Design.

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Given our current and projected workloads for the staff proposed herein, KEITH can and will provide the personnel and resources required to service this contract. KEITH manages its long and short-term workload fluctuations through a policy of proactive management and resource/personnel sharing. Our diverse staff has made the commitment of their time and energy to meet the schedule requirements of similar contracts in the past and is committed in providing unparalleled service to this contract. Delays are contained and minimized through routine weekly department/project meetings aimed at maximizing project scheduling effectiveness.

Our staff routinely operates on extended and modified work schedules allowing for expedited project executions and absorption of unforeseen schedule challenges. We carefully monitor our staff's hours which allows us to properly plan for additional staffing requirements. In some circumstances, we have actually passed on contracts if we felt they would unduly burden our staff to perform in a timely efficient manner. This senior management oversight and weekly interaction ensures that the delivery and project communication remain with the utmost priority within the firm.



The Project Schedule is as follows:



TAB 7 PRINCIPAL LOCATION



Work performed under this contract will be performed from our Corporate Headquarters office located at:

301 E. Atlantic Boulevard Pompano Beach, FL 33060



TAB 8 ABILITY TO COMPLETE PROJECT ON TIME

Engineering Inspired Design.

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KEITH has the administrative know how and the staff to manage large and small work authorizations, the management skills and the technical expertise to ensure top quality is always delivered to the City. Given our current and projected workloads, KEITH can and will provide the personnel and resources required to service the City of Hollywood for this contract.

KEITH manages its long and short-term workload through a policy of proactive management and resource/personnel sharing. Our diverse staff wear many hats; we have committed to the time and energy required to meet the schedule requirements of similar contracts in the past and continue to be committed to providing unparalleled service to this contract. Delays are contained and minimized through routine weekly department/project meetings aimed at maximizing project scheduling effectiveness. Senior management oversight and weekly interaction guarantees our Teams have those discussions to deliver the projects successfully. Given our current and projected workloads, KEITH can and will provide the personnel and resources to exceed the expectations of the City for this contract.

Our previous experience on our highlighted projects shows KEITH's ability to deliver projects on time, as highlighted in the bar chart below.

Project	Initial Projected Completion (months)	Actual Completion (months)
BCWWS Septic Tank Elimination Cont Engineering Services	34	32
FLL North Perry HWO Utility and Paving Projects	18	16
Hollywood Boulevard Heights Septic to Sewer Conversion	24	24
Bermuda Riviera Water Mains Improvements	7	8
Davie Boulevard 18" Water Main Abandonment	10	10
Port Everglades A/E Southport Phase IX-B Container Yard Stormwater Report	8	8
FLL International Northern, Western and Ravenswood Drainage System Study	12	11
Broward County District 1A Water Treament Plant Expansion	24	24
John Knox Village Stormwater Management Plan	16	14
Pompano Beach GIS Mapping Services Pilot Project	12	11



TAB 9 ABILITY TO COMPLETE PROJECT ON BUDGET



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KEITH has historically completed projects ahead of schedule and within budget parameters. Our hands on project approach and dedicated team, as described in previous sections, has proven their ability to control the design process, expedite the permitting process and move quickly into construction. Our budgets are based on historical costs for similar projects and estimated levels of effort anticipated for each individual project. Combining our local knowledge and input from key subconsultant partners on the elements needed to plan and execute the project, we are confident the project can be completed within the time and budget allotted.

Yes, the KEITH Team is willing and confident we can meet anticipated project completion dates for the entire duration of this contract and will provide design and CA services to keep total project cost below the project budget ceilings. We will work with the City staff to assure individual work order schedules and budgets are properly identified and expectations are understood to deliver on-time projects while being good stewards of the City funds.

Our previous experience on our highlighted projects shows KEITH's ability to deliver projects on budget, as highlighted in the bar chart below.

Project	Initial Project Costs Est.	Actual Costs Est.
BCWWS Septic Tank Elimination Cont Engineering Services	\$1,111,074.28	\$1,100,000.00
FLL North Perry HWO Utility and Paving Projects	\$30,000.00	\$28,500.00
Hollywood Boulevard Heights Septic to Sewer Conversion	\$88,000.00	\$82,000.00
Bermuda Riviera Water Mains Improvements	\$112,359.00	\$112,359.00
Davie Boulevard 18" Water Main Abandonment	\$300,860.00	\$298,500.00
Port Everglades A/E Southport Phase IX-B Container Yard Stormwater Report	\$800,000.00	\$798,000.00
FLL International Northern, Western and Ravenswood Drainage System Study	\$127,426.60	\$125,250.00
Broward County District 1A Water Treament Plant Expansion	\$22,209.00	\$22,100.00
John Knox Village Stormwater Management Plan	\$552,160.00	\$500,000.00
Pompano Beach GIS Mapping Services Pilot Project	\$14,250.00	\$14,250.00



TAB 10 PROJECT APPROACH



PROJECT UNDERSTANDING

KEITH has read and understands the project scope and desired outcomes as outlined in the RFQ document for the City of Hollywood. The project entails a two phases of utility improvements related to the water and sewer upgrades. Phase one includes water and sewer improvements in the area within East Dania Beach Boulevard and Sheridan Street, including intracoastal crossings at Sheridan Street and Polk Street. Phase two will consists of water and sewer improvements south of Sheridan Street through Johnson Street. Each phase will be designed, bid and constructed separately. Design, bid and construction of phase one will precede phase two. The KEITH Team understands that the term of the project will include a 5 year initial term with the potential for two 2 year extensions totaling 9 years. The KEITH Team has expertise with all required services to complete these projects including Topographic Survey, Environmental Survey, Utilities verification, Subsurface utility evaluation, Geotechnical investigation, Design/Bid Package and supporting technical experience, cost estimation, permitting, prepare bidding documents and construction administration services including SFR compliance assistance. The KEITH Team will meet with the City to confirm the project phases, scope, schedule, fee and obtain an official NTP before engaging in any work activities.

PROJECT APPROACH

KEITH understands it is imperative to have senior staff members overseeing the planning, design, permitting and construction components of this project. This corporate philosophy results in an extremely efficient and responsive project management approach, as well as superior project designs prepared on time and within budget. We are committed to continue providing our most highly qualified professionals for this project, which will provide effective and responsive service to the City of Hollywood.

We have a keen understanding of the many challenges that can be encountered in a utility design environment. Accordingly, we have assembled a design team with broad capabilities and depth of experience to address any needs that may arise. KEITH and its team of local professional consultants know and understand the City of Hollywood operations. These many years of collective experience mean that City concerns with project development will be taken under consideration throughout the entire design and construction process. Thus, when planning, programming and / or assessing new construction or renovations to existing facilities, the KEITH Team is cognizant of utility operational requirements and the impact they have on our design work and schedule to successfully complete any work authorizations.



KEITH is well versed in the management and implementation of large-scale civil design projects. As one of the veteran Broward-based engineering firms, we have provided Engineering Services as a prime consultant for numerous governmental agencies for decades. Mr. Bill Keith followed by Ms. Dodie Keith-Lazowick, PSM and Mr. Alex Lazowick, PE, PMP, have spent their entire careers right here in Broward County, providing high quality projects to the City of Hollywood and others, time and again.

KEITH believes in a context-based approach that considers multiple facets of the development process resulting in solutions that are curated for each authentic scenario. In addition to the traditional design approach, we believe careful consideration should be given to economic, ecological and social factors. This cohesive approach to each project is engineered to enhance the opportunity for a resilient solution. This triple bottom line approach to the design process is also combined with the need to create a sense of place through enhanced aesthetic beauty and quality.

Our approach is categorized into the following three general phases:

- Exploration Phase The process of becoming familiar with an area through extensive analysis.
- Inspiration Phase The process of developing ideas emanating from the exploration process.
- Implementation Phase The process of activating a decision or plan.

Each phase builds on the previous and seeks to combine a triple bottom line perspective; with an emphasis on Social, Ecology and Economic influences. This context-based design approach considers multiple facets of the development process to result in a resilient solution that is cultivated for each project and task.

Our approach to every project begins with a "No Excuses" methodology. We bring a unique combination of top-guality consultants with years of in-depth experience working on municipal projects under the leadership of KEITH, a firm you know you can trust with your important utility infrastructure projects.

As the Prime Consultant, the KEITH team will implement a rigorous communication protocol among all project participants. The basis of our management approach will focus on managing communication between our team and the City of Hollywood, as follows:

- Provide Single Point of Contact Having a single point of contact for the City to simply reduce miscommunication • and work as an extension for the City. In this contract, we have assigned Mr. Stephen Williams, Sr., PE as the Project Manager. He will be assigned to the City of Hollywood in this capacity for the life of the contract to assure continuity and reliability to City staff.
- Establish the involved group of stakeholders, and provide clear lines of communication to all, as required. •
- Understand the objectives of the project and assure that all project stakeholders have the same level of commitment and expectation in understanding the scope of work.
- Schedule periodic progress meetings.
- Maintain strong, ongoing working relationships with City staff. •

Our approach to this management plan is one that has proven successful with many projects. We will schedule all meetings in coordination with the City of Hollywood staff, conduct the meetings, provide agendas and meeting materials, record and submit minutes for review / approval and then distribute those minutes to the appropriate parties.

Based on the scope of each phase of this project, KEITH will develop a project schedule to sequence key activities associated with and required for the successful design of the project. By carefully scheduling and sequencing activities, key elements of the work authorization may be performed in a sequential, but staggered manner in order to expedite delivery of the work authorization, while ensuring all issues and concerns are properly addressed. An example of this would be that a certain level of general planning and conceptual design consideration of alternative solutions and interviews with authorities having jurisdiction, may be undertaken while site inspections and surveys of existing conditions at a site or facility are underway.

In addition to excellent project management, KEITH will also bring all service sectors to this project including, Civil Engineering, Surveying, Subsurface Utility Engineering, Landscape Architecture, and Construction Management. KEITH will be involved in every task and will ensure the proper QC to completed through the life of the project.

We believe that our overall corporate ideology, coupled with our expertise and commitment to the City of Hollywood, will be the keys to the successful execution of this contract. The following additional information specifically identifies our sub-consultants' roles in the project by discipline, expertise, and work element to be provided throughout the project phases and our core belief that we are the best fit Team for the City and for this Project.

SUBCONSULTANT TEAM

Nova Consulting and GFA International are the team's premiere sub-consultants and will bring hundreds of additional resources and years of additional experience to the project. Together this team is comprised of nearly 500 local staff members with the expertise and knowledge to complete this project on time and under budget. KEITH, Nova and GFA have all been working together here in Broward County for over 10 years. We have all completed an abundant number of successful projects for the City of Hollywood. This triple threat team has the knowledge, history and capacity to successfully complete this project, and we believe is the perfect fit for the City of Hollywood and specifically this Project.

Nova was incorporated in 1995 as local minority, woman-owned (M/WBE) company. The firm **Nova** Consulting has an established reputation for excellence in civil and environmental engineering. Nova has over 25 years of experience in the environmental field on projects ranging from transportation

to water resource management. Nova specializes in field supervision and investigations, groundwater and soil sampling, environmental assessment plans and reports, remedial action work plans, and permitting. Having worked with Department of Transportation and Public Works on numerous infrastructure projects throughout Miami Dade County, Nova is adept with the procedural and regulatory requirements.

Our staff consists of highly skilled Professional Engineers, Geologists, and Scientists that specialize in port facilities, waterfront infrastructure, water and wastewater, design criteria packages, detailed engineering design, environmental assessments and compliance, feasibility and environmental impact studies, permitting, and value analysis and life-cycle costing.

Nova provides complete program management services for its clients including project planning and coordination, project definition, design and construction management, project controls (scheduling and cost estimating), document control, construction inspection, public outreach and commissioning.



Founded in 1988, GFA is a privately held Florida S Corporation that has grown from 6 employees in 1988 to over 250 employees today. Our dynamic and experienced team is comprised of registered professional engineers and geologists', project engineers', certified industrial hygienists', environmental scientists; multi-discipline building code inspectors and plans examiners; as well as certified field and laboratory engineering technicians and support staff. Our senior staff has 500+ years of combined geotechnical engineering, environmental consulting, materials testing and inspection experience.

With state-of-the-art, calibrated and certified lab and field equipment, GFA maintains complete in-house laboratory facilities and equipment for the comprehensive field and laboratory testing and inspection of soils, rocks, aggregate, concrete, asphalt, steel and other specialty items. Our materials laboratories are accredited by the Construction Materials Engineering Council (CMEC), the FDOT and the U.S. Army Corps of Engineers (USACE), and undergo annual in-depth, third-party inspections/audits. Our team of experienced professionals has the necessary education, training, equipment, and licenses to address all of the services detailed in the solicitation. GFA utilizes state-of-the-art equipment, global information systems, and wide-area communications, to assure our clients that the data they receive is timely, accurate, and comprehensive.

GFA also owns and operates one of the largest and most diverse fleets of drilling equipment in the state. By owning, operating and maintaining our own equipment, we can deliver the highest quality product in a more cost-effective and timely manner by eliminating unnecessary subcontractor costs and delays. Our fleet includes track and truck-mounted equipment and limited access rigs for tight spaces, low overhead conditions, and over-water work allowing us to access almost any drill site. In addition to direct push and conventional drilling, GFA also offers Sonic drilling services. Sonic drilling is renowned for its high-quality samples, drilling speed, and capacity compared to rig weight, size and costs. Another advantage of Sonic drilling is that there are virtually no soil and water spoils that may otherwise need to be disposed of when drilling on environmentally impacted sites, thus saving thousands of dollars for our clients. Our drill crews are experienced in handling a wide range of geologic situations in a variety of settings; their drilling experience combined with state-of-the-art technological capabilities means we successfully complete jobs even under the most difficult drilling conditions.

By way of introduction to our capabilities and qualifications, we draw your attention to the following advantages which differentiate GFA from many of our competitors:

OUR QUALIFICATIONS

- Licensed Florida Geology Business (GB #118)
- Licensed Florida Engineering Business (CA #4930)
- Licensed Florida Asbestos Consulting Business (ZA404 & PVD107)
- Licensed Florida Radon Measurement Business (Certification No. RB2617)
- US Army Corps of Engineers Validated Testing Laboratories
- Construction Materials Engineering Council Certified Laboratories
- FDOT Qualified Testing Laboratories
- o Work Groups: 9.1, 9.2, 9.3, 9.4, 9.4.1, 9.5, 10.1 and 10.3
- Fully owned and maintained fleet of drill rigs

OUR COMPETITIVE ADVANTAGES

- Longevity & trust ~ same ownership and key management since 1988
- One of the highest Dun & Bradstreet ratings in the industry
- Investment of over \$2M in new geotechnical equipment in last 18 months
- Services completed on over 200 projects with construction costs over \$200M
- Exemplary record on municipal, public and private projects over last 30 years
- Professional services provided on over 1,000 K-12, college and university projects
- 2010 South Florida Business Journal "CEO of the Year" award; Frank Frione, CEO
- 2012 Business Leader Magazine "Top 50 Entrepreneurs" award; Fred Kaub, President
- 2017, 2018 & 2019 Gulfshore Business Magazine "Best Engineering Firm"
- 2018, 2019 & 2020 Sun Sentinel "Top Workplace"

In short, we have the resources, equipment, and transportation necessary to perform all associated tasks and activities that the City of Hollywood may require.

To summarize, the KEITH Team for Civil Engineering services; KEITH will be the Prime Consultant overseeing all phases of the project, ensuring the overall schedule, budget and scope are all meet. Nova Consulting will share a major portion of the design, permitting and construction administration for the distribution system including civil engineering support, including lift station design, sewer modeling, as well as environmental engineering. GFA International will be providing geotechnical engineering services.

In addition to Civil Engineering, KEITH also provides in-house land surveying, bathymetric surveying, subsurface utility engineering, landscape architecture and planning services. Our robust team will ensure the two-phase project addressing utility improvements is completed in a timely manner with limited disturbances. Our firm is MOT certified and has the expertise of working within the right of way. Crashing the project schedule up front by completing necessary surveys will build early float time to ensure any future unforeseen conditions can be tackled without falling behind the overall project schedule.

During the field investigation phase our team will also complete soil bores to determine soil conditions and to better design the subaquatic crossings. These geotechnical servers will be led by GFA International, a well-known local firm.

Subsurface Utility Investigation:

It is important to have the best information about existing utilities and subsurface conditions before embarking on the design effort. The KEITH Team recognizes that uncharted utilities remain in areas where the mapping functions of the City's Record Drawings have yet to be field verified and that additional utility field verification may be required to avoid conflicts.

A key element of design is discovering unknown utilities, additional utility relocations, or that a utility is in poor condition could disrupt construction activities in the area of discovery, or worse, interrupt existing services to utility patrons. Additional utility explorations will be completed on those areas deemed critical.

The KEITH Team has already taken the time to pull a Sunshine 811 design ticket to understand the utility types and Owners we anticipate working with (Ticket #184001308).

Our Team brings an unparalleled understanding of the utility's main pipelines and conditions that may be encountered. This knowledge base will be supplemented by information gained from field surveys, review of



as-built information and other documents that will greatly enhance the final design product and heighten the probability of a smoother construction phase.

To mitigate the risks, we propose to conduct advanced utility discovery probes to properly identify existing utilities along proposed improvement corridors. This information combined with obtaining immediate verification and development of the design aspects that will have impact to the existing utilities will determine the plan our Team will take to the other utility companies for coordination at the onset of the project. KEITH intends to use our SUE staff on all segments of the project in support of the design teams.

We will hold utility coordination meetings that will be attended by all stakeholders, not only during the design phase, but also through construction. We will be proactive in communicating with the City Project Manager(s) to ensure that they understand the schedule and design constraints. To promote open communication, the City Project Manager(s) will be included in all meetings to make all parties aware of utility issues.

Geotechnical Engineering

Another concern common to utility development projects is that subsurface exploration often encounters soils contaminated by fuel or other hazardous materials. Such situations need to be properly, and quickly assessed, and appropriate design measures developed and implemented in accordance with federal and state laws and in coordination with the relevant environmental agencies. The soils themselves could be overly corrosive to ductile iron pipelines. Should pipe corrosion due to existing soil conditions be a concern we would collect the samples needed for a DIPRA evaluation and recommendation.

For any geotechnical analysis and materials testing, the KEITH Team will use our sub-consultant GFA International. Geotechnical analysis will include field exploration coupled with a laboratory testing program to develop optimum, consistent, and complete geotechnical treatments. We will prepare Geotechnical Engineering Reports to summarize our

field and laboratory testing that define the subsurface soil and groundwater conditions encountered including evaluation and design recommendations as may be needed.

THE PROJECT

The Utilities Improvements project requires an understanding of two design considerations: local factors and technical factors. Local factors are project-specific considerations that impact projects dependent upon the location and features surrounding the project area. Local factors include three layers of consideration: the



above-grade (visible) layer, below-grade (subsurface) layer, and non-physical (invisible) layer, such as traffic load, existing utilities, and available right-of-way, respectively.

Technical factors are the engineered components and tools required to establish the design and construct the built infrastructure planned for on a pipeline project. For example, they include items such as hydraulic modeling, fluid velocities, available pipe bend standards and fittings and trenchless technology availability. In designing a pipeline project, both the local factors and technical factors should be considered and must be evaluated and applied to develop the best solution for the project.

Our team's approach to pipeline design is established by focusing on five key parameters while incorporating both local factors and technical factors. The five key parameters include:

- Establishing Pipe Diameter
- Route Analysis
- Pipe Material Selection
- Geotechnical/Environmental
- Installation Method

Although these parameters are developed separately from one another, they are not independent. For instance, pipe material selection is dependent on pipe diameter, geotechnical/environmental conditions, and installation method. Similarly, the selected route, pipe diameter, and geotechnical/environmental conditions need to be considered when selecting the installation method. Figure 1 below depicts the relationship between the design steps and demonstrates the importance of fully understanding a pipeline project before assessing the details.



For example, when completing the route analysis to determine the optimum route of a pipeline, the pipe material,

TAB 10 PROJECT APPROACH

geotechnical conditions, pipe diameter, and installation method must all be evaluated. As the design component areas are evaluated, the optimum route begins to get flushed out. Pipe material affects the route as some materials allow joints to be deflected to minimize bends; geotechnical conditions affect the route as pre-existing contaminated areas may want to be avoided; pipe diameter affects the route as existing utilities may require certain spacing between pipelines impossible for some alignments; and installation method affects the route as there may not be enough available space for a conventional trenching installation, so a directional drill operation may need to be employed. As this iterative process continues, the optimum route is established as the other design components are defined, and vice versa. It becomes as much of an art as it does a technical solution.

Specific considerations are evaluated for each of these steps. Route analysis is not limited to finding the shortest distance to get a pipeline from Point A to Point B but must also consider things such as available right-of-way or easements, public impact, long-range area planning, geotechnical/environmental factors, constructability, and ease of maintenance after construction is complete.

Once the local factors and technical factors are identified in each of the three layers (visible, subsurface, and invisible),

they are combined, evaluated, and alternatives presented to develop the final decision regarding the route analysis parameter.

WE KNOW AGENCY STAFF, STANDARDS, and PROCEDURES

The KEITH Team has performed a magnitude of work for the state, county and local municipalities within South Florida. Our experience has resulted in a thorough knowledge of the standards, and how to apply them with a practical and common-sense approach. We believe that building relationships is what it takes to truly understand the concerns of the agencies and address them in a professional manner that is personal to the Agency. We take pride in building those long-lasting relationships and acting as an extension of our clients' staff.



The Permitting portion of our team's project approach is crucial to the project schedule and this coordination is key all the way through the project, and

even through close-out. We are aware that most regulatory agencies are busy and even overworked. As a result, our policy is to "get it right the first time". We understand what the local and state agencies are looking for, and we provide them with quality complete designs including the information and documentation that they need, in a format that they are accustomed to, so reviews and approvals can be accomplished without multiple resubmissions.

KEITH utilizes a hands-on approach, meeting early in the process with all regulatory agencies to discuss the proposed planned concepts and assess the issues relative to their approval process. For utilities projects such as this, the time required for permitting can represent a major portion of the overall design time and will thus need to be tightly managed. KEITH will be responsible for acquiring/compiling all necessary permit information. These materials will be packaged and submitted to the City Project Manager. Permit status will remain an agenda item for each coordination meeting. Having local consultants on our team, who also understand the requirements of the regulatory agencies having jurisdiction, is another huge key to successfully and timely completing work authorizations issued to the KEITH Team under this contract.

Permits which will be required for the design under this contract will include:

- The City of Hollywood Environmental Protection and Growth Management Department
- Florida Department of Environmental Protection (FDEP)
- Florida Department of Transportation (FDOT)
- The City of Hollywood Highway Construction Engineering Division
- The City of Hollywood Traffic Engineering Division
- South Florida Water Management District
- The City of Hollywood Water and Wastewater Services (BCWWS)
- Army Corps of Engineers

We are very familiar with the requirements of the City of Hollywood, as well as these numerous governmental agencies. For any design project, it is important to be proactive on the necessary permits to avoid any potential delays and to continue

project momentum. KEITH provides a stellar reputation with these agencies of good design practices, accountability and extensive experience with project permitting and approvals.

As we have proven on recent significant City and County utility projects, KEITH has routinely and expertly navigated and substantially expedited the permitting process of our projects through multiple jurisdictions and agencies providing a substantial cost savings benefit to the City of Hollywood.

We will also identify any critical long lead time items that the City of Hollywood may wish to procure in advance of the construction projects. This approach will ensure that such items are procured to facilitate project completion and delay avoidance, such as a dewatering permit.

QUALITY ASSURANCE/QUALITY CONTROL

KEITH is keenly aware that time is of the essence for most projects and cost is always an important component of the design. This is why we have an established a Quality Assurance/Quality Control (QA/QC) Program that is implemented throughout the design process through project closeout. This ensures that the plans are prepared to the highest quality standards from the beginning and eliminates lengthy agency review and revision times. It also allows for value engineering and constructability analysis throughout the quality review process.

Underlying this quality process are three corporate philosophies; utilizing the right people to do the right things at the right time; putting our detailed and time-tested processes in place to facilitate quality work and delivery; and utilizing

a comprehensive quality management plan that addresses quality control throughout every aspect of the project.

WE KNOW THE LOCAL COMMUNITY

Each community is unique. Our Team has gained a level of understanding as to what is important to the citizens and to determine how they will be impacted. The public and key stakeholders are involved from the earliest possible point in the project's evolution – from the conceptual and study phases, through design and construction. We will partner with local governments, businesses, neighborhood associations, and other appropriate organizations to facilitate community-wide communication. Through carefully planned involvement activities, such as open houses, opinions are gathered, and findings are



presented. Our Team will share appropriate and timely project information with those in the community, and conversely, alert project owners as to its perspectives and concerns. This leads to public and stakeholder trust and confidence in the project.

Our Public Outreach approach includes;

- Prepare a database of homeowners, residents, and businesses
- Prepare project collateral brochures, flyers, fact sheets, notification letters, news articles, e-newsletters, website maintenance and public notices
- Notify the businesses in advance of the project start date via a door to door visit
- Prepare and distribute information regarding the activities by week on the project
- Coordinate and attend public meetings with established neighborhood associations or community groups, schools, and business owners during design and construction as determined and directed by the City.
- Hold public meetings as early an as often of the City sees fit.
- During construction of the project respond to the businesses, property owners and resident inquiries daily and keep a log inquiries/complaint with responses verifying resolution

In addition to the above, the KEITH team understands that "new media" isn't that new anymore–and is here to stay. Social media platforms are just another set of communication tools, and you need to customize them to fit your audiences. Be consistent and sustained with your outreach. We keep in mind that audiences and interested parties change as a project progresses through planning, design, and construction phases.

The KEITH team will ensure communication goals are accomplished in the most efficient and effective ways possible.

As a multidisciplinary firm, KEITH can and will provide an array of services and will be involved in each and every phase of this project.

CIVIL ENGINEERING

KEITH has extensive experience in providing professional services required for the development or redevelopment of land including the permitting, design, coordination and construction of roadway / parking area(s), stormwater, potable water, utility, and wastewater systems. Recognizing and expecting that each development or redevelopment project has its own unique site issues, KEITH performs a thorough investigation into these issues in order to avoid planning, design, coordination, and construction issues. Our engineers have the knowledge and expertise to meet the needs of a wide variety of general civil engineering issues.

KEITH's staff has provided comprehensive planning and engineering services in various disciplines involving many government institutions, and municipalities. agencies, We have had the honor and privilege of providing Civil Engineering services within the City of Hollywood for the past 2 decades. Our ability to work with municipalities, government agencies and other consultants, while providing close coordination with the client result in projects being completed on time and within budget. KEITH has found great success utilizing a team approach that has led to effectively identifying problems and defining solutions.



STORMWATER MANAGEMENT

KEITH has the knowledge and proven abilities to understand the complex nature of stormwater management. Especially in the urban environment, where balance must be achieved between the permitting requirements, restricted positive outfalls, budget limitations and existing historical drainage patterns. Our team has the professional acumen to fully investigate the existing conditions and propose creative solutions that will resolve and simplify the feasible alternatives. In addition, we are routinely familiar with the National Pollutant Discharge Elimination System (NPDES) Program, and the requirements to implement it.

WATER DISTRIBUTION AND SANITARY SEWER COLLECTION SYSTEM SERVICES

KEITH has a vast experience with studies, designs, permitting and construction administration tasks associated with water distribution and sanitary sewer collection systems. Designs following standards of most all South Florida utility providers have been implemented. Sanitary sewer collection system designs ranged in pipe sizing from a 2inch force main serving a grinder pump system to a 16-inch diameter force main transmission line. Numerous public and private pump station designs have been constructed throughout South Florida. Water distribution system designs ranged from 4-inch diameter fire sprinkler lines to 24 inch diameter water transmission lines. All manner of service demand evaluation and hydraulic capacity of these systems has been evaluated in the design of these systems. KEITH inspection staff have expertise with all AWWA / Florida HRS testing requirements of water distribution systems and all FDEP testing requirements for gravity/ force main sanitary sewer collection systems. At Ft. Lauderdale Hollywood International Airport KEITH was responsible for many miles of sanitary sewer force main and water main relocations and upgrades associated with the construction of the South Runway.

GEOSPATIAL ENGINEERING

The expertise of our Land Surveying staff is evidenced by a combined South Florida surveying experience of over 100 years. This experience has resulted in a tremendous database of knowledge and information. The ability to offer inhouse surveying and mapping capabilities provides for a more comprehensive unified team. Services include boundary, topographic, control, wetland, mitigation, route, aviation, bathymetric, GIS, GPS, as-built, American Land Title and coastal surveys, legal descriptions, right-of-way mapping, design base sheets, title review, DTMs, differential leveling, construction stakeout, platting, expert witness surveying, and mapping services.

The firm maintains six full-time field crews to provide for our clients on an as-needed basis. Our entire field staff has received Maintenance of Traffic (M.O.T.) Safety Training currently required by the Florida Department of Transportation for work within public roadways. KEITH is also in full compliance with the current School Board Security Clearance Policies of finger printing and successful background checks in accordance with the State of Florida Jessica Lunsford Act for school access by workforce personnel. We understand the importance of these security requirements and are in 100% compliance for the safety of our staff and the public.

KEITH has placed a strong emphasis on quality surveying and mapping practices and procedures. This focus ensures that our surveying personnel are committed to exceeding your expectations.

SUBSURFACE UTILITY ENGINEERING (SUE)

Subsurface Utility Engineering (SUE) provides accurate mapping of existing underground utilities, eliminating the need to "find out the hard way" that plotted utility information was inaccurate. Performed during the project design process, Subsurface Utility Engineering can help utility owners, designers, engineers and contractors avoid conflicts or project delays. To avoid these issues, many clients turn to KEITH, a recognized leader in Subsurface Utility Engineering. KEITH's staff has the expertise required to deliver accurate utility information needed by clients, engineers, contractors and designers to make informed decisions. Using KEITH's' SUE services will result in the enhanced accuracy of project designs and cost estimates by collecting and mapping underground utility data that was primarily unknown.

Our team of experts also includes utility coordination managers with extensive experience in working with facility owners, design teams and agencies to mitigate conflicts between existing facilities and proposed designs. Our relationships with

area utility agencies serve to facilitate negotiations, expedite requests for available records and ultimately the successful certification of each project.

LANDSCAPE ARCHITECTURE

Our Landscape Architecture Department specializes in the creative fusion of architecture, landscape architecture and the environment. The ability to offer in-house landscape architecture design capabilities, ISA certified arborist and certified landscape inspector provides for a more comprehensive unified team. Our approach is one of an extension of our clients' staff, offering guidance and assistance to make smart, long-term decisions that result in greater value for them, their projects, their stakeholders and our community as a whole. Regardless of the scope of the project, we pay special attention



to architectural and landscape detail and welcome every opportunity to improve our environment.

CONSTRUCTION OVERSIGHT and FIELD INSPECTION

This portion of our approach addresses the true test of the success of the design project - construction. Our Construction Oversight Inspection (COI) Team is led by Jonathan Weymouth, PE a Senior Construction Engineer seasoned by experience on several the City of Hollywood projects. Mr. Weymouth, along with his team, are familiar with utility operations and maintenance policies and require no learning curve to get the job done.

The objective of our COI Team is to vigorously manage the project's construction activities, budget, schedule, and quality to achieve the desired result of delivering the project on time, within budget, and without major issues or claim disputes. The work shall, at all costs, minimize disruptions to existing utility service, while adhering to standard traffic control procedures, in the safest and most efficient means possible.

The KEITH Team brings the proven accountability and work ethic necessary to anticipate problems, negotiate the unforeseen issues with acceptable solutions and hold the project on schedule, in a reasonable, professional, and most efficient manner. We have demonstrated to be a hands-on team capable of achieving these goals in a comprehensive seamless manner.

KEITH currently provides construction inspections (RPR) and administration services including shop drawing review, preconstruction meetings, construction inspections, progress meetings, as-built plan preparation/ review, test result review for certifications, as well as contractor pay application review and approval on numerous projects of ours.

The Team has qualified professional engineers on staff who are readily available to go to the field and make any necessary and appropriate design adjustments as conditions dictate. Further, we have a policy of providing responses to RFIs, in most cases, within 24 hours to facilitate a continuous construction operation with no delays. The COI Team must work quickly and give clear and concise direction and clarifications. This availability and our office proximity in the heart of the City of Hollywood can save the City time and money; essential to any successful project.

PROJECT CERTIFICATION and PERMIT CLOSEOUTS

As important as it is to effectively and efficiently design and construct a project, we recognize that it is equally important to finalize the project and get all the permits closed out. Our COI Team has proven success with project completion that is attributed to the care and attention paid to the project during construction. They are using GPS Enabled Photographic

Equipment and check progressive as-builts to ensure City stands are being met. Complete and concise documentation, reporting and organization during the construction phase allows for expedient project certification and close out. On many traditional projects, the closeout of all contract-required conditions can be a drawn-out process. Often, staff must spend a significant amount of time at the end of the project reviewing paper documents gathered during the project to locate and catalogue the "proof" that the project has been completed and meets all requirements. Our approach uses an Electronic Document Management & Storage System (EDMSS) as part of the project database to provide a real-time record and progress of fulfilling each applicable acceptance condition. Our Final Acceptance Procedures have proven very effective in reducing the time to complete closeout on very complex projects.

As the Prime Consultant we will identify potential conflicts early in the design process to the City of Hollywood Project Manager and provide solutions that facilitate the continued success and objectives of the project. In managing the work, our Team will ensure use of a consistent set of design software and ensure consistent design standards and guidelines are used throughout the project. KEITH is a leader in the industry in terms of performing civil engineering designs in a 3-Dimensional realm. All work will be done with AutoCAD Civil 3D or the request software by the City Project Manager.

COMMITMENT TO SUCCESS

Every member of our design team has a proven history of successfully completing projects of this size and nature, and this Contract has our full attention and commitment. Each member of our team is wholly committed to the success of all Phases within the Project. At KEITH we carefully monitor, measure and push to fruition each and every phase of the Project. We measure its progress to ensure we remain on track and on schedule. This is true through planning, design, permitting, bidding, administration of the construction contract and project close-out.

Understanding the proposed scope and schedule of the City on each Phase is fundamental to the success of the Project and the KEITH Team knows what it takes to meet the expected goals and objectives of the City of Hollywood and all the associated stakeholders.



TAB 11 FORMS AND ADDITIONAL INFORMATION

Engineering Inspired Design.



CITY OF HOLLYWOOD DEPARTMENT OF PUBLIC UTILITIES ENGINEERING AND CONSTRUCTION SERVICES DIVISION

1621 N. 14th Avenue Hollywood, FL 33019 Phone (954) 921-3930 Fax (954) 921-3591

ADDENDUM NUMBER 1

EXHIBIT 1. SUBMITTAL QUESTIONNAIRE

Attachment A

DESIGN AND CONSTRUCTION ADMINISTRATION SERVICES FOR HOLLYWOOD BEACH UTILITY IMPROVEMENTS

SUBMITTAL QUESTIONNAIRE

ENGINEERING SERVICES QUALIFICATION STATEMENT AND SUBMITTAL QUESTIONNAIRE

PROJECT NAME: DESIGN AND CONSTRUCTION ADMINISTRATION SERVICES FOR HOLLYWOOD BEACH UTILITY IMPROVEMENTS PROJECT NO.: 10-5106/18-7098

1. FIRM NAME & OFFICE LOCATION (Mailing Address and Street Address)

Name: Keith and Associates, Inc., dba KEITH
Mailing Address: Street/PO Box 301 E. Atlantic Boulevard
City Pompano Beach State FL Zip 33060
Physical Address (if different from above): Street same
City State Zip
Phone (954)788-3400 Ext Fax () -
Primary E-Mail alazowick@keithteam.com Address:
Web Site Address:
Contacts: 1. Name: <u>Alex Lazowick, PE, PMP</u> Title: <u>President</u>
2. Name: <u>Kristen Lawlor</u> Title: <u>Marketing Director</u>
2. TYPE OF ORGANIZATION
 A. Check One: X Corporation (complete Section B and G) Sole Proprietorship (complete section C and G) Sole Proprietorship (complete section F and G Other (complete Section F and G
B. If a Corporation, State incorporated: Florida

	Date of Incorporation: 1998	
	State in which Incorporated: Florida If an out-of-state corporation that is currently authorized to do business in the State of Florida, give the date of such authorization:	
	Name and Titles of Principal Officers	Date Elected
	Dodie Keith-Lazowick, PSM, CEO	1/2020
	Alex Lazowick, PE, PMP, President	1/2020
	Paul Weinberg, PLA, Executive Vice President	1/2020
C.	If a Partnership, State formed:	
	Date of n/a Partnership:	
	Type of Partnership (General or Limited): Names and Addresses of Partners:	
D.	If Joint Venture, State formed: Date of Joint Ventureship: n/a Names and Addresses of Joint Venturers:	
E.	If a Sole Proprietorship, State created: Name and Address of Sole Proprietor:	
	n/a	

F.	If other than above, please de	escribe:
	n/a	
G.	Related Parent Company, Div (Attach additional information o	isions, and Subsidiaries: n other office locations, if appropriate)
G.		
G.	(Attach additional information o	
G.	(Attach additional information o	
G.	(Attach additional information o	
G.	(Attach additional information o	
G.	(Attach additional information o	
G.	(Attach additional information o	
	(Attach additional information of n/a	
ease a.	(Attach additional information o	

- c. Corporate Family Treed. Company Brochure/Annual Report

See Tab 11 Forms and Additional Information

3. EMPLOYEES AND PERSONNEL Provide a separate listing for personnel at the corporate (national) level, with the state (Florida) level and for the local office.

Permanent Office Staff	Number	Avg. Years With Firm		
		1-5	5-10	10+
Administrative	20	х		
Project Management	7		х	
Engineers	39		Х	
Design/Drafting	26	X		
Computer Services	2		X	

Permanent Office Staff	Number	Avg. Years With Firm		
		1-5	5-10	10+
Clerical	20	x		
/Technicians	20	A		
Procurement				
	0			
Project Control	_		х	
and Estimating	5			
Construction				
Management	25		х	
Research and				
Development	17	Х		

Local Office Location: Pompano Beach, FL

Personnel in Organization by Discipline.

Discipline	Engine	Engineers		
	Reg	Total	Total	
Civil	39	39	39	
Sanitary	39	39	39	
Structural				
Mechanical				
HVAC				
Process	39	39	39	
Electrical				
Instrumentation				
Industrial				

Discipline (<i>Procurement</i>) Capital Equipment Buyers Subcontract Administrators Bulk Material Buyers Inspection/Expediting Clerical/Technical Support	Personnel n/a
Discipline (<i>Construction</i> <i>Management</i>) Field Superintendents Home Office Management Planners (Site, City, Community) Architects Other	8 5 12 0
Maximum Man-Hours Available Pe Year: Current Estimated Man-Hours Per Year:	TBD TBD

4. FINANCIAL INFORMATION

A. Attach a copy of current audited income statement and balance sheet.

5. WORK EXPERIENCE:

A. Types of Services Provided (Check Yes or No)

Yes	No		Yes	No
X		Stress Analysis*		X
X		Pipeline	X	
X		Surveying	X	
X		Direct Hire Field Construction		X
	X	Detailed Instrumentation & Control	X	
X		Process Design	X	
	X X X X	Equipment Design Detailed Electrical Detailed Piping Design Construction Management		X X
			Image: Stress Analysis* Image: Stress Analysis*	Image: Stress Analysis* Image: Stress Analysis* Image: Stress Analysis* Image: Stress Analysis* </td

	Pr	ocurement			x	Inspection/E	xpediti	ng	X	
В	. Dr	afting Meth	nod Ut	ilized:						
	*	Manual		Computer	x	If Computer, Wr Program:	nat	AutoCAD		
С	av	Please attach summaries for projects, related to the type of work to be awarded as a result of this submittal, completed by your firms including:								
	 Location of project and client Description of project Your scope of involvement in project Contract type (e.g. reimbursable/fixed fee/fixed price) Approximate value of contract Duration of work Project Manager Utilized 									
6. E	,		U	HE CITY OF	HOLL	YWOOD				
	Α.		Recent ation/	t City Description	of)	Hollywood V	Nork	Experien	ce:	
		see page	e 83							
	В.				-	ering services a e/Location/Descri	•	nent, if any:		
		none								
	-									
	-									

7. SUBCONTRACTED SERVICES:

List Subcontractor/ Sub-consultant firms expected to be utilized, and their portion of the work below:

Name of Firm	Area of work to be Performed under this agreement
Nova Engineering	Environmental and civil design support
GFA International	Geotechnical Engineering

Also, provide resumes of individuals from these firms whom the Subcontractors shall utilize for completion of the construction.

Identify those subcontractors that are Minority/Women's Business Enterprises and repeat required information in "Minority/Woman Business Participation", below for said Subcontractors. (THIS REQUIREMENT FOR M/WBE INFORMATION IS VOLUNTARY)

8. BUSINESS SIZE AND CLASSIFICATION

A. Size (check one)

Small

A domestic concern that normally employs section 3 of the Small Business Act.

□ Large

A domestic concern which, including less than 500 persons, or as defined by domestic and foreign divisions and affiliates, normally employs 500 or more persons, is independently or publicly owned or controlled and operated and

which may be a division of another domestic or foreign concern.

B. Classification (check where applicable; may be more than one)

 Foreign: A concern which is not incorporated in the United States or an unincorporated concern having its principal place of business outside the United States. Minority: 	☑ Women: A business that is at least 51% owned and controlled by a woman or women. (THE REQUIREMENT FOR M/WBE INFORMATION IS VOLUNTARY)
A business, at least 50% of which is owned by minority group members, or, in case of publicly owned businesses, at least 51% of the stock of which is owned by minority group members. For the purpose of this definition, minority group members are Black-Americans, Hispanic- Americans, American-Orientals, American-Indians, American-Eskimos, and American-Aleuts. (THE REQUIREMENT FOR M/WBE INFORMATION IS VOLUNTARY)	 Nonprofit: A business or organization that has received nonprofit status under IRS Regulation 501C3. Sheltered: A sheltered workshop or other equivalent business basically employing the handicapped.

Please indicate in the space below how your firm complies with the definitions selected above.

KEITh is 100% woman owned

9. PROFESSIONAL ENGINEER'S LICENSE:

Respondent must hold a valid State of Florida Professional Engineer's License to be considered a qualified bidder.

State o No.:	of Florida Professional Engineer's License	CA7928	
Date: Current to FEBRUARY 28, 2021			
Primar Classif	y ication: Professional Engineer		

10. QUALIFICATION FORM PREPARED BY:

Name (print or type):	Ale Lazowick, PE, PMP
Title:	President
Signature:	lifti
Address:	301 E. Atlantic Boulevard, Pompano Beach, FL 330606
Telephone Number:	954-788-3400

5 year Project History City of Hollywood	Services	Start Date	Completion Date	
Hollywood Circle Mixed Use 1740 Polk Street	surveying	April 2015	July 2018	
Hollywood Circle Publix Store	surveying	April 2018	May 2018	
7-11 Hollywood Boulevard #41214	planning, civil, traffic, landscape and construction observation	June 2019	Ongoing	
STOF Hollywood Raw Water Supply Improvements	SUE, utility coordination	February 2017	Ongoing	
Block 40 1818 Hollywood Boulevard	surveying	June 2017	December 2017	
Hollywood WW01-01	surveying, SUE	May 2018	July 2018	
421 N. 21 Avenue	engineering and planning	May 2017	June 2020	
Pinnacle at Peacefield	surveying	September 2017	July 2019	
Hollywood Self Storage	SUE	December 2018	December 2018	
City of Hollywood Arts and Cultural Center	surveying, landscape architecture, CPM, civil engineering	March 2020	Ongoing	
PHG SR 7	surveying and civil engineering	October 2019	Ongoing	
2780 Stirling Road	SUE	October 2019	December 2019	
TLC v Gartner	surveying	June 2020	Ongoing	



CITY OF HOLLYWOOD DEPARTMENT OF PUBLIC UTILITIES ENGINEERING AND CONSTRUCTION SERVICES DIVISION

1621 N. 14th Avenue Hollywood, FL 33019 Phone (954) 921-3930 Fax (954) 921-3591

ADDENDUM NUMBER 1

EXHIBIT 2. RESPONDENT CHECK LIST

THIS SHEET MUST BE SIGNED

RESPONDENT CHECK LIST

IMPORTANT: Please read carefully, sign in the spaces indicated and return with your Submittal.

Respondent should check off each of the following items as the necessary action is completed:

- 1. The Submittal has been signed.
- 2. Any required descriptive literature, etc. have been included.
- 3. Any information required is included.
- 4. Any addenda have been signed and included.
- The mailing envelope has been addressed to: Office of the City Clerk City of Hollywood P.O. Box 229045. Hollywood, FL 33022-9045
- 6. The mailing envelope must be sealed and marked with Submittal Number, Submittal Title and Due date.
- 7. The Submittal will be mailed or delivered in time to be received no later than the specified due date and time. Otherwise Submittal cannot be considered.
- 8. Submittal includes:
 - a) Statement of current and projected workload
 - b) List of sub-consultants
 - c) Auditor's letter
 - d) Organizational chart
 - e) Litigation
 - f) Project schedule

ALL COURIER-DELIVERED STATEMENTS OF QUALIFICATIONS MUST HAVE THE RFQ NUMBER AND TITLE ON THE OUTSIDE OF THE COURIER PACKET

Company Name:

Keith and Associates, Inc., dba KEITH

Signature and Title:

Alex Lazowick, PE, PMP, President

Date:

6/25/2020

PROJECT SUBMITTAL

Keith and Associates, Inc. dba KEITH FROM:

301 E. Atlantic Boulevard, Pompano Beach, FL 33060

_____6/25/2020

DATE:

CITY OF HOLLYWOOD Department of Public Utilities c/o City Clerk 2600 Hollywood Blvd. Hollywood, FL 33022-9045

RE: RFQ NO. 10-5106/18-7098

To whom it may concern:

The undersigned, as Respondent, hereby declares that we have examined the Scope of Services and informed ourselves fully in regard to all conditions pertaining to the work to be done for the City of Hollywood's Consulting Services Contract – **DESIGN AND CONSTRUCTION ADMINISTRATION SERVICES FOR HOLLYWOOD BEACH UTILITY IMPROVEMENTS**. The Respondent further declares that the only persons, company or parties interested in this Submittal or the Contract to be entered into as principals are named herein; that this Submittal is made without connection with any other person, company or companies making a Submittal; and it is in all respects fair and in good faith, without collusion or fraud.

The service to be furnished by us is hereby declared and guaranteed to be in conformance with the specifications of the City.

The undersigned agrees that should this Submittal be accepted, to execute the contract and present the same to the City for approval within twenty (20) days after being notified of the awarding of the contract.

The undersigned further agrees that failure to execute and deliver said forms of contract within twenty (20) days, will result in damages to the City.

	EREOF, I have hereunto subscribed my name on this day of, 2020, in the County
of Broward	, in the state ofI
Keith and Associates	s, Inc., dba KEITH
Respondent's Firm	n or Trade Name
Corporation, Sole P	roprietorship, Partnership (Circle One)
Phone No.:	954-788-3400
Address	301 E. Atlantic Boulevard
City and State Zip	Pompano Beach, FL 33060
	Alex Lazowick, PE, PMP
BY:	
	Typed and Written Signature
	President
	Title



I certify from the records of this office that KEITH AND ASSOCIATES, INC. is a corporation organized under the laws of the State of Florida, filed on January 20, 1998, effective January 16, 1998.

The document number of this corporation is P98000006011.

I further certify that said corporation has paid all fees due this office through December 31, 2020, that its most recent annual report/uniform business report was filed on January 7, 2020, and that its status is active.

I further certify that said corporation has not filed Articles of Dissolution.



Given under my hand and the Great Seal of the State of Florida at Tallahassee, the Capital, this the Sixth day of February, 2020

Tracking Number: 0172368376CU

To authenticate this certificate, visit the following site, enter this number, and then follow the instructions displayed.

https://services.sunbiz.org/Filings/CertificateOfStatus/CertificateAuthentication

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LITIGATION

In 2016, KEITH was involved in a material case (No. 14-14525(12)) as a third-party defendant in a dispute between a client of ours and a neighboring property owner. The case was settled, and all parties involved have received resolution. KEITH has not been involved in any other litigation over the past 5 years.

KEITH was incorporated as a Florida corporation in 1998. As a mid-size close-knit firm of over 170 professionals, we provide civil engineering, traffic engineering, surveying and mapping, subsurface utility engineering, planning, landscape architecture, construction management and virtual design and construction services. The firm was founded on the principal of achieving success by combining the latest technology with client oriented business practices, and a staff of experienced and talented professionals.

KEITH understands the importance of community involvement and the necessity of working with local, state, and federal agencies in a hands-on cooperative manner to build consensus and receive subsequent approval of highly sensitive projects. This approach represents an underlying philosophy of the firm which results in a quality product, with emphasis on scheduling and cost effectiveness through team oriented management and quality control.

The professionals of KEITH continue to take great pride in the success of their undertakings. We look forward to the opportunity to provide you professional services.

FDOT Work Groups 3, 6, 7, 8, 10, 13, 15

KEITH is certified with the Florida Department of Transportation as follows:

3.1 Minor Highway Design
3.2 Major Highway Design
6.1 Traffic Engineering Studies
6.2 Traffic Signal Timing
7.1 Signing, Pavement Marking and Channelization
7.2 Lighting

7.3 Signalization
8.1 Control Surveying
8.2 Design, Right of Way & Construction Surveying
8.4 Right of Way Mapping
10.1 Roadway Construction Engineering Inspection
13.6 Land Planning/Engineering
15.0 Landscape Architecture

CIVIL ENGINEERING

KEITH has extensive experience in providing professional services required for the development or redevelopment of land including the permitting, design, coordination and construction of roadway / parking area(s), stormwater, potable water, utility, and wastewater systems. Recognizing and expecting that each development or redevelopment project has its own unique site issues, KEITH performs a thorough investigation into these issues in order to avoid planning, design, coordination, and construction issues.

KEITH's staff has provided comprehensive planning and engineering services in various disciplines involving many government agencies, institutions, and municipalities. We have had the honor and privilege of serving as one of the City of Pompano Beach's Civil Engineering consultants for the past thirteen years on a continuing service basis. Our ability to work with municipalities, government agencies and other consultants, while providing close coordination with the client result in projects being completed on time and within budget. KEITH has found great success utilizing a team approach that has led to effectively identifying problems and defining solutions.

STORMWATER MANAGEMENT

KEITH has the knowledge and proven abilities to understand the complex nature of stormwater management. Especially in the urban environment, where balance must be achieved between the permitting requirements, restricted positive outfalls, budget limitations and existing historical drainage patterns. In addition, we are routinely familiar with the National Pollutant Discharge Elimination System (NPDES) Program, and the requirements to implement it.

WATER DISTRIBUTION AND SANITARY SEWER COLLECTION SYSTEM SERVICES

KEITH has a vast experience with studies, designs, permitting and construction administration tasks associated with water distribution and sanitary sewer collection systems. Designs following standards of most all South Florida utility providers have been implemented. Sanitary sewer collection system designs ranged in pipe sizing from a 2inch force main serving a grinder pump system to a 16 inch diameter force main transmission line. Water distribution system designs ranged from 4 inch diameter fire sprinkler lines to 24 inch diameter water transmission lines. All manner of service demand evaluation and hydraulic capacity of these systems has been evaluated in the design of these systems. KEITH inspection staff have expertise with all AWWA/ Florida HRS testing requirements of water distribution systems and all FDEP testing requirements for gravity/ force main sanitary sewer collection systems.

TRAFFIC ENGINEERING

The safe and efficient movement of people, goods and vehicles is the focus of our traffic engineering practice. Because we understand that traffic is connected with, is impacted by and itself affects other facets of development, our experienced staff provides a holistic approach to solving and providing insight into traffic engineering challenges that can be typical of our region or that are unique to a community. By drawing upon our interdisciplinary expertise, we can incorporate ideas such as multi-modal solutions, intelligent transportation systems and complete streets into traffic designs, studies and analyses that effectively optimize transportation solutions. Whether designing to maximize on-site parking, performing analyses to determine traffic patterns or preparing signal plans, our team focuses on providing solutions that address the needs of each project.

This informed approach thoughtfully analyzes current industry trends, while adhering to the requisite engineering standards and practices to yield professional, reliable and cost-effective results that allow both our public and private sector clients to meet all of the goals and regulatory requirements essential to the successful completion of their projects.

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KEITH Traffic Engineering services include:

- Signalization Plans
- Signing and Marking Plans
- Parking Lot Designs
- Site Circulation and Roadway Designs
- Traffic Impact Studies
- Intersection Warrant Studies
- Parking Studies
- Safety Studies

GEOSPATIAL ENGINEERING

- Crash Analyses and Diagrams
- Highway Capacity Software (HCS) Analyses
- Trip Generation Reports
- Roadway Compliance Reports
- Land Use Amendments
- Traffic Control Agreements

The expertise of our Land Surveying staff is evidenced by Ms. Dodie Keith-Lazowick, PSM, Mr. Bill Arata, PSM, Mr. Eric Wilhjelm, PSM, Mr. Michael Mossey, PSM and Mr. Timothy Gray's, PSM combined South Florida surveying experience of over 100 years. This experience has resulted in a tremendous database of knowledge and information. The ability to offer in-house surveying and mapping capabilities provides for a more comprehensive unified team. Services include boundary, topographic, control, wetland, mitigation, route, aviation, bathymetric, Mobile LiDAR, GIS, GPS, as-built, American Land Title and coastal surveys, legal descriptions, right-of-way mapping, design base sheets, title review, DTMs, differential leveling, construction stakeout, platting, expert witness surveying, and mapping services.

The firm maintains eight full-time field crews to provide for our clients on an as-needed basis. Our entire field staff has received Maintenance of Traffic (M.O.T.) Safety Training currently required by the Florida Department of Transportation for work within public roadways. KEITH is also in full compliance with the current School Board Security Clearance Policies of finger printing and successful background checks in accordance with the State of Florida Jessica Lunsford Act for school access by workforce personnel. We understand the importance of these security requirements and are in 100% compliance for the safety of our staff and the public.

KEITH has placed a strong emphasis on quality surveying and mapping practices and procedures. This focus ensures that our surveying personnel are committed to exceeding your expectations.

SUBSURFACE UTILITY ENGINEERING (SUE)

Subsurface Utility Engineering (SUE) provides accurate mapping of existing underground utilities, eliminating the need to "find out the hard way" that plotted utility information was inaccurate. Performed during the project design process, Subsurface Utility Engineering can help utility owners, designers, engineers and contractors avoid conflicts or project delays. To avoid these issues, many clients turn to KEITH, a recognized leader in Subsurface Utility Engineering. KEITH's staff has the expertise required to deliver accurate utility information needed by clients, engineers, contractors and designers to make informed decisions. Using KEITH's SUE services will result in the enhanced accuracy of project designs and cost estimates by collecting and mapping underground utility data that was primarily unknown.

Our team of experts also includes utility coordination managers with extensive experience in working with facility owners, design teams and agencies to mitigate conflicts between existing facilities and proposed designs. Our relationships with area utility agencies serve to facilitate negotiations, expedite requests for available records and ultimately the successful certification of each project.

LANDSCAPE ARCHITECTURE

Our Landscape Architecture Department specializes in the creative fusion of architecture, landscape architecture and the environment. The ability to offer in-house landscape architecture design capabilities, ISA certified arborist and certified landscape inspector provides for a more comprehensive unified team.

Our team has provided innovative designs for institutional and commercial projects, residential and mixeduse developments, streetscape and roadway beautification, active and passive parks, plazas and various urban redevelopments. Whether it is in meeting the code of landscape ordinances with creativity or in creating spectacular lush destinations, we bring experience, knowledge, fresh energy and innovation to each project. Our approach is one of an extension of our clients' staff, offering guidance and assistance to make smart, long-term decisions that result in greater value for them, their projects, their stakeholders and our community as a whole. Regardless of the scope of the project, we pay special attention to architectural and landscape detail and welcome every opportunity to improve our environment.

CONSTRUCTION MANAGEMENT

KEITH has provided construction related services for projects ranging from airport facilities, residential communities, commercial projects and recreational parks including structures, terminals, roadways, parking lots, and utility infrastructures. The best construction management practice is to maintain a close working relationship with all parties involved and to respond quickly and effectively to any issues that may arise. This approach coupled with our experience and knowledge, offers our clients the opportunity to minimize cost overruns and delays during construction through pre-design services, design and construction oversight, and construction administrative services.

KEITH is able to provide construction management duties and responsibilities which may include but are not limited to the following:

- Bid Evaluation
- Construction Administration
- Consultant/contractor/materials testing coordination
- Agency coordination including MOT (Maintenance of Traffic)
- Project controls utilizing the county's records system for financial reporting and project recordkeeping with strict adherence to county policy
- Estimating and scheduling
- Oversee daily job site activities with supervisors, engineers and inspections, as needed
- Quality Assurance
- Safety and Risk Management
- Oversight of permitting and inspections
- Coordinate all temporary badges, visitor passes, escort rated badges, badge renewals, vehicle decals, airside driver endorsement, and any other required security issues
- Report to contract program manager or designated Project Manager as applicable
- Review and approve all pay applications for earned value and contract compliance which may include change orders, CPEAM's, release of retainage, and final payments
- Be knowledgeable with county contract delivery methods such as CM@Risk, fixed bid, unit price and design/build
- Be knowledgeable with all environmental standards, FAA rules and regulations and State and Federal DOTS
- Advise on and comply with all security policies.

KEITH is committed to delivering an effective level of oversight and stewardship of any construction program. We focus on program practices and techniques that add value and help to ensure effective oversight and acceptable accountability.

CEI SERVICES

Members of KEITH has experienced and qualified staff trained in providing Construction Engineering and Inspection (CEI) services. Our inspection staff members are CTQP (Construction Technician Qualification Program) certified. From construction managers to technical inspection personnel, our highly efficient team has the flexibility to support private development clients as well as governmental municipalities and State agencies (FDOT). We provide an array of Construction Engineering and Inspection services including contract administration, construction management, document control, utility coordination, observations / inspections, schedule and cost controls and contract close-out certifications. The unique ability to understand and recognize both construction constraints and the processes required for a successful project is what defines the KEITH CEI team.

GENERAL PLANNING SERVICES

KEITH has a vast amount of experience in providing professional planning services. This may include long range planning services comprising of comprehensive planning, evaluation and appraisal reports, preparation of land development applications including, rezoning, platting, delegation requests and site planning. Our planners have the knowledge and expertise to meet the needs of a wide variety of general planning design and development services. We understand the necessity for continual input during the conceptual site planning design stages to assure a satisfactory final community site plan. KEITH has the knowledge and proven abilities to coordinate and provide all necessary services for commercial and residential community site planning. KEITH will provide coordination of the development review process from initial conceptual design, application submission to final approval. Our team would utilize a hands-on approach to meet the community site planning needs.

KEITH can also provide numerous planning studies including, but not limited to, parking studies, corridor studies, state mandated planning reports, urban design analysis, transfer of development rights, community liaison, and numerous types of feasibility studies.

BIM

KEITH has the capacity and expertise to model existing surfaces through the use of laser scans/3D point clouds and proposed surfaces, underground utilities utilizing Civil 3D, as well as importing/coordinating other building information models on or adjacent to the site. With this knowledge, the owner can consider potential savings in evaluating proposed projects, layouts of new buildings and facilities, preparing cut and fill calculations and quantity estimating/take offs, not to mention the advantage of having accurate data for future development, facility management and analysis of life cycle costs. The use of Building Information Modeling (BIM) as a deliverable allows for the owner to maximize their ability to have the data managed in all formats (Revit/AutoCAD Civil 3D, COBie data and GIS) and for that data to be utilized throughout the life span of the facility.

Tools/Software

AutoCAD 2016Leica LevelPak 8.4Autodesk RECAP 2016Microstation FDOT SS4Leica Cyclone 9.1.4Power GEOPAK 8.11.09.845Leica Cloudworx 6.1ArcMap 10.3.1

LEED (Leadership in Energy & Environmental Design)

The Leadership in Energy and Environmental Design (LEED) Green Building Rating System[™] is the nationally accepted benchmark for the design, construction, and operation of high performance green buildings. LEED gives building owners and operators the tools they need to have an immediate and measurable impact on their buildings' performance. LEED promotes a whole-building approach to sustainability by recognizing performance in five key areas of human and environmental health: sustainable site development, water savings, energy efficiency, materials selection, and indoor environmental quality.

PERMITTING

Permitting to facilitate construction of improvements is a critical element in the overall project management process. Permitting can be extremely time consuming and may result in project delays and cost overruns. It is, therefore, critical that members of the project management team work closely with the client, other consultants, and the respective agencies to identify issues of importance to regulatory agencies during early stages of the design process.

To facilitate an orderly flow of our design services, KEITH utilizes a hands-on approach, meeting early in the process with regulatory agencies having jurisdiction over the site to evaluate their standards and assess the issues relative to their approval process. Our project approach includes permitting as a specific task in our scheduling process and given the magnitude of the assignment, schedules may be updated more frequently to assure compliance with the overall project schedule. KEITH's experience in dealing with the regulatory agencies enables us to secure the necessary permits in a most expeditious manner.

GEOGRAPHIC INFORMATION SYSTEM (GIS)

As previously indicated, KEITH believes in efficiency and the utilization of state-of-the-art technology to service our clients. Our Geographic Information System (GIS), running ARC/INFO software, was specifically chosen to match the systems used by many of our public sector clients to ensure compatibility of information during the permitting process. This system incorporates all aspects of city governmental functions, from police and fire through to the monitoring of the utility system, also including detailed information relative to site and landscape architectural plans being processed through the City.

POST STORM RECOVERY

KEITH has experience in providing total project management services for hurricane preparedness and post storm recovery. These services include preparation 48 hours prior to storm events, initiation of a 72-hour emergency response after the storm, preparation and submittal of applications to FEMA and NRCS as well as management of the debris removal effort to ensure compliance with funding requirements. KEITH is currently under contract to provide Disaster Recovery services to the City of Fort Lauderdale as a sub-consultant to the PBS&J Team.

COMMUNITY INVOLVEMENT

KEITH recognizes that among the many contributing factors to a successful project, community involvement and consensus building are critical elements and we try to incorporate them into every major project. Our community involvement program has been extremely successful in establishing lines of communication among the affected parties so everyone has an opportunity to contribute towards the development of the project. We have facilitated charettes for numerous projects to gain awareness of community preferences and concerns on upcoming developments. On a number of sensitive construction projects KEITH established a community hot-line manned by our project engineers to assist in resolving community construction related concerns in a timely and effective manner.

GRANT WRITING

Members of KEITH staff are experienced in the preparation of State and Federal grant applications as well as the reporting requirements associated with the program management of different types of grants. Members of the KEITH team are directly responsible for the award of \$22 Million in grant funds to various municipalities and governmental organizations as detailed herein.

The firm's Senior Planner, Mike Vonder Meulen, AICP, has assisted governmental agencies with writing application and being awarded Florida Recreation Development Assistance Program (FRDAP), Land & Water Conservation Fund (LWCF) and Intermodal Surface Transportation Efficiency Act (ISTEA) grants.

Successfully preparing and receiving a grant award is a significant first step in the process, however, the program management reporting requirements over the life of the grant are equally as important. Understanding the complexities of meeting the obligation and expenditure deadlines as well as all the reporting requirements are crucial to any grant program. The members of the KEITH team have the knowledge and experience in multiple types of grants and programs that can be leveraged to provide additional supplemental funding resources for their clients, which is crucial in these difficult economic times as agencies struggle with the budgetary shortfalls and constraints.



NOTICE TO ALL BIDDERS AND PROPOSERS

Cone of Silence

The City of Hollywood City Commission adopted Ordinance No. <u>O-2007-05</u>, which created Section 30.15(F) imposing a Cone of Silence for certain City purchases of goods and services.

The Cone of Silence refers to limits on communications held between vendors and vendor's representatives and City elected officials, management and staff during the period in which a Formal Solicitation is open.

The Ordinance does allow potential vendors or vendor's representatives to communicate with designated employees for the limited purpose of seeking clarification or additional information. The names and contact information of those employees that may be contacted for clarification or additional information are included in the solicitation.

The Cone of Silence does not prohibit a vendor or vendor's representative from communicating verbally, or in writing to the City Manager, the City Manager's designee, the City Attorney or the City Attorney's designee on those procurement items to be considered by the City Commission.

The Cone of Silence does not prohibit a vendor or vendor's representative from making public presentations at a duly noticed pre-bid conference or duly noticed evaluation committee meeting or from communicating with the City Commission during a duly noticed public meeting.

The Cone of Silence shall be imposed when a formal competitive solicitation has been issued and shall remain in effect until an award is made, a contract is approved, or the City Commission takes any other action which ends the solicitation.

To view the Cone of Silence, Ordinance No. O-2007-05, go to the City of Hollywood's Official website at <u>http://www.hollywoodfl.org</u>

NOTE: It is the responsibility of each Proposer to redact all financial information (i.e., social security numbers and bank account numbers) from your RFP prior to submittal, which are exempt from the Florida Statutes Chapter 119, (Public Records Law).

INSURANCE REQUIREMENTS

The insurance policy shall not contain any exceptions that would exclude coverage for risks that can be directly or reasonably related to the scope of goods or services in this bid/proposal. A violation of this requirement at any time during the term, or any extension thereof shall be grounds for the immediate termination of any contract entered in to pursuant to this bid/proposal. In order to show that this requirement has been met, along with an insurance declaration sheet demonstrating the existence of a valid policy of insurance meeting the requirements of this bid/proposal, the successful proposer must submit a signed statement from insurance agency of record that the full policy contains no such exception.

The City reserves the right to require additional insurance in order to meet the full value of the contract.

The City reserves the right to require any other insurance coverage it deems necessary depending upon the exposures.

HOLD HARMLESS AND INDEMNITY CLAUSE:

Keith and Associates, Inc., dba KEITH, Alex Lazowick, PE, PMP, President

(Company Name and Authorized Signature, Print Name),

the contractor shall indemnify, defend and hold harmless the City of Hollywood, its elected and appointed officials, employees and agents for any and all suits, actions, legal or administrative proceedings, claims, damage, liabilities, interest, attorney's fees, costs of any kind whether arising prior to the start of activities or following the completion or acceptance and in any manner directly or indirectly caused, occasioned or contributed to in whole or in

part by reason of any act, error or omission, fault or negligence whethe by the contractor, or anyone acting under its direction, control, or on its b with or incident to its performance of the contract.



Keith and Associates, Inc., dba KEITH, Alex Lazowick, PE, PMP, President

(Company Name and Authorized Signature, Print Name),

further certifies that it will meet all insurance requirements of the City of Hollywood and agrees to produce valid, timely certificates of coverage.

OTHER CONSIDERATIONS

Copies submitted may not be viewed until 30 days after opening date or notice of intent to award is posted.

EQUAL EMPLOYMENT OPPORTUNITY

Proposer shall provide a written statement that it does not and will not discriminate against any person, employee, or applicant for employment, because of race, creed, color, religion, sex, national origin, ancestry, age or disability.

PROMPT PAYMENT: LATE PAYMENTS BY CONTRACTOR TO SUBCONTRACTOR AND MATERIAL SUPPLIERS; PENALTY:

When a contractor receives from the City of Hollywood any payment for contractual services, commodities, materials, supplies, or construction contracts, the contractor shall pay such moneys received to each Subcontractor and Material Supplier in proportion to the percentage of work completed by each Subcontractor and Material Supplier at the time of receipt. If the contractor receives less than full payment, then the contractor shall be required to disburse only the funds received on a pro rata basis with the Subcontractors and Material Suppliers, each receiving a prorated portion based on the amount due on the payment. If the contractor without reasonable cause fails to make payments required by this section to Subcontractors and Material Suppliers within 15 working days after the receipt by the contractor of full or partial payment, the contractor shall pay to the Subcontractors and Material Suppliers a penalty in the amount of one percent of the amount due, per month, from the expiration of the period allowed herein for payment. Such penalty shall be in addition to actual payments owed. Retainage is also subject to the prompt payment requirement and must be returned to the Subcontractor or Material Supplier whose work has been completed, even if the prime contract has not been completed. The Contractor shall include the above obligation in each subcontract it signs with a Subcontractor or Material Suppler.

ADA COMPLIANCE

Persons with disabilities who require reasonable accommodation to participate in City programs and/or services may call the Equal Opportunity Manager, Office of Human Resources and Risk Management at (954) 921-3218 (voice). If an individual is hearing or speech impaired, please call Florida Relay Service 1-800-955-8771.

PUBLIC ENTITY CRIMES

"A person or affiliate who has been placed on the convicted vendor list following a conviction for public entity crime may not submit a bid on a contract to provide any goods or services to a public entity, may not submit a bid on a contract with a public entity for the construction or repair of a public building or public work, may not submit bids on leases of real property to public entity, may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity, and may not transact business with any public entity in excess of the threshold amount provided in Section 287.017, for CATEGORY TWO for a period of 36 months from the date of being placed on the convicted vendor list."

DECLARATION

The aforementioned, as Proposer (herein used in the masculine singular, irrespective of actual gender and number), declares, under oath that no other person has any interest in this Proposal or in any resulting agreement to which this Proposal pertains, that this Proposal is not made with connection or arrangement with any other persons, and that this Proposal is made without collusion or fraud.

The Proposer further declares that he has complied in every respect with all the instructions to Proposers, that he has read all addenda, if any, issued prior to the opening of Proposals, and that he has satisfied himself fully relative to all matters and conditions with respect to the general conditions of the agreement and all relevant information to which this proposal pertains.

DISCLOSURE OF CONFLICT OF INTEREST

Vendor shall disclose below, to the best of his or her knowledge, any City of Hollywood officer or employee, or any relative of any such officer or employee as defined in Section 112.3135, Florida Statutes, who is an officer, partner, director or proprietor of, or has a material interest in the vendor's business or its parent company, any subsidiary, or affiliated company, whether such City official or employee is in a position to influence this procurement or not.

Failure of a vendor to disclose any relationship described herein shall be reason for debarment in accordance with the provisions of the City of Hollywood Purchasing Ordinance.

Name

Relationship

None

In the event the vendor does not indicate any name, the City shall interpret this to mean that no such relationship exists.

