eRFP 20210081 | DESIGN OF THE SOUTHPORT 24-INCH FORCE MAIN TO GLADES BOOSTER PUMP STATION

TODAY'S KEY TEAM MEMBERS

C. Robert Reiss, PhD, PE
Principal-in-Charge

Stefano Ceriana, PE, LEED AP
Project Manager

Ed Talton, PE
Hydraulics Lead

Joseph Capra, PE
Permitting/ CEI

CHA & CAPTEC PROJECTS

Southport Backbone 24-inch Force Main
Port St. Lucie, FL
- Force main construction from Tiffany Avenue to Southport WWBPS
- 22,300 LF of 24-inch force main

Water, Wastewater and Reclaimed Water Master Plan
Indiantown, FL
- Population demand projections
- Hydraulic modeling
- CIP development

Westport WWTF Improvements,
Port St. Lucie, FL
- Design, permitting, bidding and construction services
- The expansion will reduce nutrients to meet the BMAP limits

CHA & CAPTEC Engineering, Inc. Civil Engineering Professionals

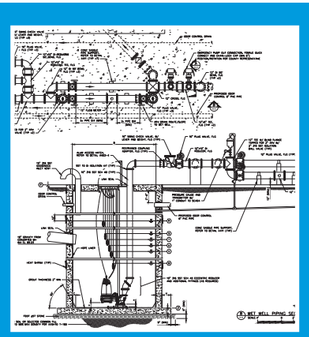
CMAR/ALTERNATIVE DELIVERY EXPERIENCE

- **Potable Water Main Replacement Design**, Orange City, FL
- **CRUSA Water Production Facility and System Improvements/ Yard Piping**, Polk County, FL
- **Morris Bridge Potable Water Pump Station (PS) and Transmission Main Design-Build**, Tampa, FL
- **Narcoosee Road Package Booster Station**, St. Cloud, FL
- **Delwood Super Station Design-Build and Force Mains**, Hillsborough County, FL
- **Little Wekiva River Force Main Replacement Design-Build**, Altamonte Springs, FL
- **Lynwood WTP and Water Main Upgrades**, Seminole County, FL
- **Odor Control Facility Design-Build**, Oviedo, FL
- **Country Club WTP and Water Main Upgrades**, Seminole County, FL
- **Regional WTP at Yankee Lake and Transmission Main**, Seminole County, FL

PROVEN CAPTEC CEI TEAM

- **Team led by Gary Jones, PE**
- **Utilize the same successful CEI process as the Southport Backbone 24-inch Force Main project**
- **Weekly construction meetings to identify issues early**
- **Coordination with adjacent property owners**
- **Hold community information meeting prior to construction**
- **Calls routed to the CAPTEC hotline**

SIMILAR PROJECT EXPERIENCE



Package 46 PS Rehabilitation Project
Orange County, FL
- Design, permitting, bidding, and construction administration services
- New triplex PS with 3.3 MGD pumps
- New 14-inch diameter wet well, 24-feet deep
- New 12-inch discharge piping

Storey Park/Innovation Place Utility Project
Orange County, FL
- Design of 955 LF of 30-inch force main; 10,929 LF of 20-inch force main; 9m749 LF of 20-inch RCWM; 2,032 LF of 12-inch RCWM; 9,537 LF of 36-inch water main; 4,027 LF of 30-inch water main; and 5,460 LF of 20-inch water main

Eagle Circle Force Main Replacement
SSNOCWTA, FL
- Design, permitting and construction administration/ inspection services
- 8,275 LF of 12-inch HDPE force main (256 LF of J&B within a 24-inch steel casing); 5,761 LF of pipe bursting; 1,331 LF of HDD; and 1,014 LF of open-cut

How We Add Value

ACCELERATING PROJECT COMPLETION

- We've worked with you on this project and the Southport Backbone 24-inch Force Main
- Initial routes and hydraulics have been completed
- Maximize the CMAR to accelerate construction
- Pre-purchase materials
- Avoid need for wetlands/USACE permit
- Leverage CAPTEC/Gary Jones' CEI team for smooth construction experience

PERMITTING: WE HAVE IDENTIFIED WHAT IS NEEDED

- FDOT I-95 permit
- City of PSL roadway and canal ROWs
- CDD properties permits
- City of PSL Public Works ROW
- SFWMD canal ROWs and dewatering permits

CHA

eRFP 20210081 | DESIGN OF THE SOUTHPORT 24-INCH FORCE MAIN TO GLADES BOOSTER PUMP STATION

1. Describe your experience with recent engineering design projects for large diameter piping where CMAR was used. CHA and its Florida staff have significant experience with CMAR, including an ongoing $17 million, 44,000-foot pipeline project for the City of Orange City; an ongoing $12 million booster pump station for Tampa Bay Water; accelerated delivery of $50 million in water system improvements for Seminole County; a booster pump station and pipeline for Toho Water Authority/City of St. Cloud; and numerous others. We have staff that are Design-Build Institute of America (DBIA) certified and have a long history with alternative delivery projects. We know how to leverage a CMAR Contractor to accelerate a schedule. While the Southport Backbone 24-inch Force Main project was not a CMAR project for the City of Port St. Lucie, CAPTEC/CHA employed many of the same CMAR principles and practices.

2. Describe your experience with recent engineering design projects where you used open cut for pipe installation in residential neighborhoods. Our team has completed numerous recent open-cut pipeline projects. This includes the City's Southport Backbone 24-inch Force Main project, for example, which was installed by open-cut methods through residential neighborhoods with minimal disturbance. The community hotline services provided by CAPTEC were a distinct advantage to quickly resolve residents' concerns caused by the construction activities. Residents' calls were logged, team personnel were quickly dispatched to meet each caller onsite and issue resolution was prioritized and expedited to resolve each concern to minimize resident inconvenience. (Please refer to our response to Question #4 below for additional information regarding the community hotline services.) Another example is that one of the existing 6-inch, low-pressure force main replacement pipes that runs along Morningside Boulevard was changed from open-cut to HDD installation in the field to minimize front-yard disturbance and restoration costs. The HDD option also reduced the required construction time for this project task.

3. What would you suggest for pipeline construction to offset the increase in pipe costs through the end of 2022? We concur on the need for cost control. Felix Associates reports that 24-inch PVC force main (C-905 DR25) Diamond LOK-21 pipe has increased from $98 per installed linear foot for the Southport Backbone project in 2019 to over $260 per installed linear foot today. Similarly, 24-inch Fusible PVC force main (DR25) by HDD has increased from $305 per installed linear foot for the Southport Backbone project in 2019 to over $460 per installed linear foot. One potential option to reduce material costs is for the City to direct-purchase the pipe materials to avoid paying sales tax, commonly known as, "owner-furnished materials" and to lock in prices before further anticipated escalations. The cost savings may save sales tax and any unknown mark-up percentage included in the contractor bids for storage and handling of the materials. We have significant experience with owner-furnished materials and are happy to discuss the pros and cons of this option further. Another possible alternative to add significant benefit to the City while providing cost-sharing opportunities between City departments would be to combine the Southport Force Main Utility Services Department project with a Public Works Department project for the canal portion of the route, taking advantage of a complete canal rehabilitation/restoration project simultaneously with the pipeline project. Sharing costs while creating a benefit for multiple departments is a win-win for the City of Port St. Lucie.

4. How would you handle construction engineering services for this project? CAPTEC will serve as the lead for construction engineering services, with CHA providing engineer-of-record (EOR) related services. CAPTEC will use the same team and same construction delivery methods as used for the City's recent Southport Backbone 24-inch Force Main project. During that project, great value was realized through frequent communication between the City, the Contractor and the residents living in the project area. Communication with the City and the Contractor is enhanced with scheduled weekly construction progress meetings with meeting minutes to document action items and confirm that tasks are completed in a timely manner to avoid extra work and change orders. Communication with city residents is accomplished during community information meetings before construction, by distributing information flyers/door hangers during construction. The door hangers include the community hotline telephone number that is answered by CAPTEC construction support personnel to maintain a log of residents' complaints and issues, enable tracking of resolution and/or completion of each issue. These and other time-tested methods utilized by our team will be applied to this project, as described in more detail in our response to these questions.

5. What is your plan on tackling the easements and right-of-way acquisition issue? a) Have you identified the locations where this will be a consideration? Most lines will be installed in existing ROW and easements. It is our intention to coordinate with all the property owners where additional easements may be needed in the beginning and all efforts will avoid additional property/easement acquisition. In the remote chance that easements are needed, all survey work will be completed with our high-qualified surveyor, Betsy Lindsay, Inc. (Betsy Lindsay), who prepared the City's base maps and has survey control throughout the City of Port St. Lucie. The City has included a pipeline corridor route review/evaluation in the proposed scope in this RFP. CHA has previously completed the hydraulic analyses/route selection options technical memorandum to support this project when it was conceived in 2019/2020. Three preliminary pipeline alignments were identified in conjunction with Department staff. These initial layouts maximized the use of canals through the area, which would require coordination with the City of Port St. Lucie for a ROW permit, but not necessarily any ROW acquisition. Furthermore, these initial alignments did not require the acquisition of easements. We understand additional route discussions have been had by the Utilities Department, including connection to the existing pipeline running north from the Rangeline facility to the Glades booster pump station. With our history of evaluating the hydraulics and routes with the City, we feel we are in the best position to support a rapid conclusion to route selection and the associated hydraulic, easement and ROW considerations

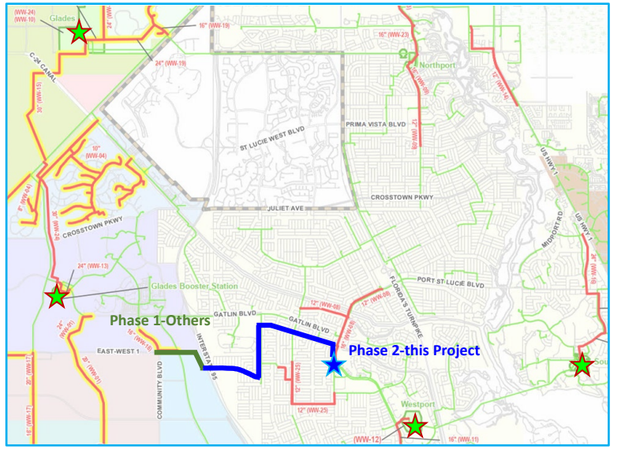
6. Why would the proposals only include 30 days for permitting on a large corridor? What kinds of impediments could arise to extend that date and how would the firm deal with them? Our plan is to hold pre-application conferences with all permit regulators and secure permits while the plans are being developed in the 30% stage of the project. The CHA design team has worked on many pipeline projects and completed a wide variety of permit requirements. Before the CHA team arrives at the permitting phase, it anticipates having already coordinated with the permitting agencies to determine their requirements for the pipeline design. Communication with the permitting agencies could also help accelerate the review period. For example, CHA recently completed a pipeline project that included over 9,000 feet and over 30 plan and profile sheets. When it came time to obtain the FDEP permit, prior coordination with FDEP allowed CHA to submit one overall exhibit showing the 9,000 feet on one 11x17 sheet, versus submitting 30 plan and profile sheets. The permits expected with this project include:

- FDOT - I-95 permits - Our team has directional-drilled new open-cut lines of 12 to 36-inch size in FDOT ROW.
- CDD properties permits - throughout the Southern Groves and Western Groves/Tradition area, the community has lands that are owned and maintained by various CDDs and property owners associations. Our team has worked with all these entities in securing permits.
- City of PSL Public Works ROW - our team has experience and has developed many of the master stormwater systems within the City of Port St. Lucie. We are ready to secure permits to use ditch canal and lake areas for the installation of these proposed force mains.
- SFWMD - our team is familiar with obtaining ROW permits in SFWMD canal ROWs, as well as dewatering permits to install all pipes for this project.
- USACE/FDEP permits - it is our recommendation to avoid any permits necessary for wetland impacts due to the extended time of securing a permit that is occurring currently from the USACE-FDEP regulators. This is the critical potential impediment to the permitting schedule that we see for this project. The other identified permitting needs are shorter duration and more predictable.

7. What is the assumed rate of installation? What kinds of impediments could arise to extend that duration and how the firm deal with them? The assumed rate of pipeline installation is dependent on various factors, but primarily where the installation is along green space (e.g., along a canal) or in an congested area (e.g., commercial or residential area). In green space, a skilled pipeline contractor may install upwards of 150 to 200 feet of pipe. In more congested areas, it would average closer to 100-feet-per day. Any project that involves a pipeline carries with it the concern of the unknown and what is below ground. Unlike vertical construction, pipelines are buried and the area in which the pipeline is installed could involve any number of potential concerns, including other utilities, unsuitable soils, above-ground obstacles, and more. Existing utilities will be identified and unknown subsurface conditions will be mitigated by robust survey and subsurface utility exploration (SUE) as part of the design, with additional field verification requirements early on with the CMAR's construction activities. Impediments to completion of the construction could happen in the dewatering process if not permitted in the design phase of the project. Knowledge of the Port St. Lucie Utilities (PSLU) required shop drawings is important to avoid delays in ordering materials. Given the current problems in the world supply chain, the CEI team must work daily with the Contractor and subcontractors to know when and where items are ordered and how they will get to the site in a timely manner. All complaints must be documented and resolved in a timely manner; this is where a hotline is time well spent to note problems and when proper documentation is needed. During the construction of the project, the CEI team must require all as-built/testing results are completed monthly to avoid future problems. The CEI team needs to look ahead of the construction to resolve problems from the environment and the neighborhoods on a weekly basis. The restoration of adjacent properties must be noted and completed in a timely manner to confirm proper completion.

8. Can you discuss the biggest project you are currently involved in with the City of PSL? Give a shorty summary and explain whether you are within time and budget? Why or why not? etc.

CHA's largest project with the City is the improvements to the Westport WWTF. This project originally consisted of process improvements as one bid package and a capacity expansion in a second bid package. The design of the process improvements bid package was completed by CHA, on-schedule. The construction was completed late but successfully, despite severe construction contractor challenges. With respect to the design, it has resolved long-standing operational challenges at the facility. City-requested increases in field inspection support resulted in increased fees to CHA. No additional fees for design were requested or required. The design of the second bid package, to expand the facility, was completed on-schedule. Governor Desantis' administration directed FDEP to modify/update the St. Lucie River Basin Management Action Plan (BMAP), among others, to include new nutrient limits, published in January 2020 while the City was bidding the expansion. This regulatory change has resulted in a delay and a modified plan to meet the capacity needs of the City and the new nutrient reduction requirements. CHA is currently tasked with updating the facility design to address nutrient reduction. The updated schedule for the WWTF bid package meets the regulatory deadline. CHA supported the City with the hydraulic assessment of this proposed Southport to Glades pipeline project, to divert flow to the Glades WWTF. We understand the importance of this, the pipeline project and the absolute need to meet the regulatory deadline. With respect to fees, CHA has received an amended fee for the additional work resulting from the BMAP regulatory change.



Attachment A - Mandatory Questions

Mandatory Questions				
These questions are Pass/Fail. To be considered responsive, responsible and eligible for award, you must answer all questions in this section.				
DO NOT INCLUDE ANY COST INFORMATION IN YOUR RESPONSE TO THIS WORKSHEET.				
Question #	Questions per Proposal Factors/Categories	Response by Offeror. Only Yes or No Answers	Upload Attachments ?	Attachment Name
	Proposal Factors			
1	List any criminal violations and/or convictions of the Proposer and/or any of its principals: (N/A is not an acceptable answer).	No	IF YES	
2	Complete and upload PSL Location Form	Yes	IF YES	Attachment D - PSL Location Form
3	Is firm a minority business?	No	IF YES	
4	Is the firm incorporated? Yes--No If yes, in what state?	Yes - New York	No	
5	List any judgements from lawsuits in the last five (5) years: (N/A is not an acceptable answer).	No	IF YES	
6	List any lawsuits pending or completed within the past five (5) years involving the corporation, partnership or individuals with more than ten percent (10%) interest: (N/A is not an acceptable answer).	Yes	IF YES	Litigation Statement
7	Has the Proposer or any of its principals ever been declared bankrupt or reorganized under Chapter 11 or put into receivership?	No	IF YES	
8	Proposers are required to submit all licenses and certifications required to perform this project.	Yes	Yes	Firm Licenses
9	Proposers are required, to submit a copy of their Insurance Certificate for the type and dollar amount of insurance they currently maintain.	Yes	Yes	Insurance Certificate
10	Complete and upload E-Verify Form	Yes	Yes	Attachment G - E-Verify Form
11	Complete and upload Drug Free Workplace Form	Yes	Yes	Attachment I - Drug Free Workplace Form
12	Complete and upload Consultant Code of Ethics	Yes	Yes	Attachment F - Consultant's Code of Ethics
13	Complete and upload Non-Collusion Affidavit	Yes	Yes	Attachment H - Non-Collusion Affidavit
14	Complete and upload Cone of Silence Form	Yes	Yes	Attachment E - Cone of Silence Form
15	Complete and upload Truth-In Negotiation Form	Yes	Yes	Attachment J - Truth in Negotiation
16	Submit W-9	Yes	Yes	W-9 Form
17	Upload and submit three (3) projects similar in size and scope to this Bid completed by your firm within the past five (5) years along with a brief description of the project, location of project, client name, client phone number, email, and value of contract.	Yes	Yes	Similar Project Experience
18	Complete and upload Mandatory Scored Questions	Yes	Yes	Attachment B - Mandatory Scored Questions
19	Complete and upload Contractor General Information Worksheet.	Yes	Yes	Contractor's Questionnaire

Mandatory Scored Questions				
Offerors must answer all the questions in this spreadhseet in the cell provided.				
Failure to answer these questions will result in disqualification of the proposal.				
Offerors must indicate whether their proposal meets the individual requirement and provide a supporting narrative in the space provided. The narrative description, along with any required supporting materials, will be evaluated and awarded points in accordance with Section 6 "Proposal Evaluation, Negotiations and Award" of this eRFP. ONLY upload documents if there is a Yes in the "Upload Attachments with Additional Information?" column, to provide additional information about specific questions. Documents not requested in this column will not be evaluated.				
DO NOT INCLUDE ANY COST INFORMATION IN YOUR RESPONSE TO THIS WORKSHEET.				
Question #	Questions per Proposal Factors/Categories	Response by Offeror	Upload Attachments?	Attachment Name
1	Please provide all documentation needed for Location. Proposer's Location - Location shall mean a business which meets the following criteria: # of Miles from City Hall to Assigned Staff's Office location 0-60 Miles 61-80 Miles 81-100 Miles 101-120 Miles 121-140 Miles 140+ Miles	CHA has four offices located in the state of Florida, with the bench strength of over 1,300 professionals in 40 office locations, company-wide. For this contract, the City of Port St. Lucie will have the direct commitment of our Melbourne office, located at 927 New Haven Avenue, Suite 206, Melbourne, FL 32901, approximately 63 miles from City Hall. **Our proposed client service manager, C. Robert Reiss, PhD, PE, is a local resident, and is based in our Melbourne office.**	Yes	Proposer's Location
2	Woman/Veteran/Minority Owned Business. Does the Primary firm hold a Minority Business Certification by the Florida Department of Management Services, as described in section 8 of the document? If so, please attach.	CHA is not a certified minority-owned business enterprise (MBE), woman-owned business enterprise (WBE), veteran-owned business enterprise (VBE), or other recognized disadvantaged business enterprise (DBE); however, we work with local DBE firms whenever possible and have a strong history of meeting contractual requirements and goals, concerning the level of utilization of such firms. We make an affirmative declaration to make a good faith effort to incorporate such firms into this contract. On our team, we have included **MBE subconsultant Betsy Lindsay, Inc. (surveying and mapping)**, and **W/MBE subconsultant SEARCH, Inc. (archaeology)**, who were selected for their W/MBE status and their particular expertise in disciplines necessary to complete this project successfully.	Yes	Women/Veteran/Minority-Owned Business
3	Executive summary. This section should include the Firm's overall concept of the working relationship that will be required to successfully complete this project. The proposer shall provide an executive summary narrative containing information that indicates an understanding of the overall need for and purpose of the services presented in the RFP.	The City of Port St. Lucie is a dynamic, growth-oriented gem on the Treasure Coast. As the seventh-largest city in Florida, there's significant utility work to be completed. We appreciate having had the opportunity to work with you for the past 15+ years. Our Florida water team has been there with you, from small, as-needed assignments, to completing your master plan when Port St. Lucie was the fastest-growing city in the United States. We've completed large design projects like the Rangeline facility and smaller studies, such as the Prineville membrane replacement pilot. We know your facilities, your management approaches and have been honored to work for you. With our office located in Melbourne, we are close-by to serve your needs. We want to be your selected consultant for this contract and remain your trusted consultant for years to come. Key considerations for selecting CHA include: **Cost-efficient services.** Our team routinely completes a large volume of pipeline projects. As such, we know how to deliver them well and cost-efficiently. CHA was recently selected against national competitors for a six-year $80 million potable and reclaimed water pipeline renewal, replacement and extension program for the City of Clearwater. We recently completed the design of the Pineda Causeway horizontal directional drill (HDD) of two 20-inch potable water mains crossing the Indian River, Merritt Island and the Banana River for the Cities of Melbourne and Cocoa. For the City of Port St. Lucie, we have designed 10 miles of water, wastewater and reclaimed water pipelines utilizing HDD, jack-and-bore trenchless technology and traditional trench excavation installation. For Seminole County, we completed a HUD-funded septic-to-sewer conversion for the 70-lot Jamestown neighborhood. **Familiar team.** Our Florida water team has provided water and wastewater services to local municipalities over the last 23 years. Currently, we hold 45 continuing contracts for water, wastewater and reclaimed water services in Florida, including with the Utilities Commission of New Smyrna Beach; the Cities of Vero Beach, Melbourne, St. Augustine, and Ormond Beach; and Brevard, Orange, Seminole, and Volusia Counties, among others. **We want to work for you.** As a former resident of St. Lucie County, Robert understands the outstanding and sensitive environmental features within the City and area and the City's focus on growth and economic development. Our team will be a committed steward of the City's environmental resources and groth aspirations. For example, the investments by Amazon, FedEx and Cheney Brothers, along with residential development, are continuing to propel the City into a robust future. We look forward to the opportunity to assist you in continuing to provide your customers with an exceptional level of service. We look forward to working with the City of Port St. Lucie. Our team of highly trained engineers and specialists has the technology, resources and expertise needed to design high-quality infrastructure solutions that last. If you have any questions, please feel free to contact Robert at (407) 789-0403 or creiss@chacompanies.com.	Yes	Executive Summary
4	Project plan. A project plan is a formal document designed to guide the control and execution of a project. A project plan is the key to a successful project and is the most important document that needs to be created when starting any business project. This should include any special concerns or accommodates needed for a successful project. The plan shall also include methods for planning, organizing, scheduling, coordinating, and administering the total effort. Explain the overall approach to the project.	We have provided our complete project approach and work plan as an attachment in File #4.	Yes	Project Plan

Attachment B - Mandatory Scored Questions

Question #	Questions per Proposal Factors/Categories	Response by Offeror	Upload Attachments?	Attachment Name
5	What does your firm anticipate being the most challenging part of this project?	The biggest challenge anticipated in this project, and for pipeline design in general, is that constructing underground utilities has a higher probability of encountering unforseeen conflicts. The unknown factor plays a role in pipeline design concerning what is located underground. Present-day technology, used by our proposed surveying and mapping subconsultant, Betsy Lindsay, Inc. and our proposed subsurface utility engineering (SUE) subconsultant, Blood Hound, LLC, will allow us to identify more of the underground utilities/structures that will impact the alignment. Our team has worked along the corridor and can use previous field data to verify we have the best available information when selecting the route. We understand that unforeseen obstructions may still be encountered during construction. CHA understands how to address these challenges, including providing field directive design that will allow the contractor to avoid the obstruction and maintain the schedule. Archaeological finds may be another challenge encountered during design/construction; this will be addressed in conjunction with CHA's team member, SEARCH, Inc., a firm that provides cultural resource services, including archaeology. Should any challenges arise on this project, the CHA team has the experience to find solutions in close communication with the City.	Yes	Anticipated Project Challenges
6	Provide a listing of firm's current contracts.	We have provided a listing of our current contracts as an attachment in File #4.	Yes	Firm's Current Contracts
7	Please complete and attach Form 330 part I and II for evaluation of qualifications & staff/personnel.	We have provided our complete SF 330 as File #3.	Yes	File #3 Standard Form 330
8	Value-added services. This term is used for non-core services, innovative tools, or, all services beyond the identified scope. Does the firm recommend any optional value-added services?	We have provided ideas for value-added services as an attachment in File #4.	Yes	Value-added Services
9	Proposed Schedule. Making adjustment for issues that may arise during this project, what is your proposed schedule for this project? This section shall include a detailed breakdown and timelines for achieving the scope of work, with a delineation of assigned staff for each task associated with the project. Also include quality assurance efforts for the data collection and analysis tasks, a process for ensuring that no individual respondents will be identified, and a project timeline. The consultant must have sufficient equipment and personnel for back-up and/or emergencies to assure prompt scheduling and completion of services within the schedule. *Final project schedule will be negotiated with awarded firm.	We have provided our proposed schedule for the project as an attachment in File #4.	Yes	Proposed Schedule
10	Other Material. Please include any additional material that may assist the City in evaluating the proposals and approach to the project. Pre-printed advertisements, brochures, and promotional material may be attached as additional information, but shall not serve as a substitute for a specific response. Attachment of brochures instead of the written response request will be grounds for disqualification or devaluation. A simple "yes" or "no" answer alone will not be acceptable unless clearly requested; an explanation shall be provided for each question/issue listed in this response outline. However, clarity and brevity of presentation, not length, will be favorably considered.	We have provided additional material for the City's evaluation as an attachment in File #4.	Yes	Other Material
11	Company Experience. Please outline and elaborate on your company's experience with projects similar to this project that included residential construction areas, FDOT permitting, Horizontal directional drilling and large diameter force main (24" or larger).	We have provided a summary of our company experience as an attachment in File #4.	Yes	Company Experience
12	Construction Management At Risk (CMAR) Experience. Describe your company's experience working with CMAR projects for water and wastewater. Provide a list of at least five projects within the last 10 years using the CMAR project delivery method.	We know that effective coordination with the City's CMAR will be a critical success factor. CHA has significant experience working with utility owners and contractors in the final stages of design to produce a guaranteed maximum price (GMP) and final contract documents throughout construction for your project. We will provide quality control and constructability reviews according to our project management plan (PMP) and in collaboration with the City's CMAR contractor, which provides the means and methods for reviewing drawings, calculations and specifications and minimizes City effort on document review. We will not rely on you to be our technical QA/QC reviewers. Your review should be to confirm that the project is proceeding according to your expectations. We have provided a listing of recent CMAR projects as an attachment in File #4.	Yes	Construction Management At Risk (CMAR) Experience

ARCHITECT - ENGINEER QUALIFICATIONS

PART I - CONTRACT-SPECIFIC QUALIFICATIONS

A. CONTRACT INFORMATION

1. TITLE AND LOCATION *(City and State)*

Design of the Southport 24" Force Main to Glades Booster Pump Station

2. PUBLIC NOTICE DATE	3. SOLICITATION OR PROJECT NUMBER
September 18, 2021	eRFP No. 20210081

B. ARCHITECT-ENGINEER POINT OF CONTACT

4. NAME AND TITLE

C. Robert Reiss, PhD, PE, Principal-in-Charge/Florida Water Project Team Leader

5. NAME OF FIRM

CHA Consulting, Inc.

6. TELEPHONE NUMBER	7. FAX NUMBER	8. EMAIL ADDRESS
(321) 345-1760	N/A	creiss@chacompanies.com

C. PROPOSED TEAM

(Complete this section for the prime contractor and all key subcontractors.)

	(Check) PRIME	(Check) JV PARTNER	(Check) SUBCON-TRACTOR	9. FIRM NAME	10. ADDRESS	11. ROLE IN THIS CONTRACT
a.	X			CHA Consulting, Inc. [X] CHECK IF BRANCH OFFICE	927 New Haven Avenue, Suite 206 Melbourne, FL 32901	Project management, planning, evaluation, modeling, design, and construction support services
b.			X	Captec Engineering, Inc. [ ] CHECK IF BRANCH OFFICE	301 NW Flagler Avenue #201 Stuart, FL 34994	Design, permitting and construction engineering assistance
c.			X	Andersen Andre Consulting Engineers, Inc. (AACE) [ ] CHECK IF BRANCH OFFICE	834 SW Swan Avenue Port St. Lucie, FL 34983	Geotechnical engineering
d.			X	Betsy Lindsay, Inc. [X] CHECK IF BRANCH OFFICE	7997 SW Jack James Drive Stuart, FL 34997	Surveying and mapping
e.			X	Blood Hound, LLC [X] CHECK IF BRANCH OFFICE	1733 Benbow Court, Suite 5 Apopka, FL 32703	Subsurface utility engineering (SUE) services
f.			X	SEARCH, Inc. [ ] CHECK IF BRANCH OFFICE	3117 Edgewater Drive Orlando, FL 32804	Archaeology
g.				[ ] CHECK IF BRANCH OFFICE		

Organizational Chart

Our team has been built to provide the City with an extraordinary blend of engineering expertise, Florida project history and personalized service. Our principal-in-charge, C. Robert Reiss, PhD, PE, will serve as the City's direct day-to-day contact. Robert has assigned the most qualified project team for the scope of services identified in your RFP. Each of our team members was specifically selected to assist in successfully completing all unique challenges and needs for the duration of the project. Resumes for key personnel can be found on the following pages.

C. Robert Reiss, PhD, PE
Principal-in-Charge

J. Richard Voorhees, PE
Quality Manager

Stefano Ceriana, PE, LEED AP
Project Manager

Senior Project Engineers
Melanie Peckham, PE
Anotine Sands, CEng., PMP

Project Engineers
Eric Gassen, EI
Eric Knoppel, EI

Hydraulic Modeling/Master Planning
Ed Talton, PE

Pipeline Design/Permitting
Mark Worsham, PE
Scott Hoxworth, PE
Steven Marquart, PE[1]
Harold Tourjee[1]
Teresa (Teri) Andre, PE[1]
Joseph Capra, PE[1]

In-house Resident Project Representative (RPR)
Charles Warren

Field Inspection
Gary Jones, PE[1]
Thomas (TJ) Shaw, EI[1]

Geotechnical
Peter Andersen, PE[2]
David Andre, PE[2]

Surveying and Mapping
Elizabeth Lindsay, PSM[3]
Ernesto Garcia, PSM[3]

SUE Services
Daniel Price[4]

Archaeology
Mechelle Kerns[5]
Jason Newton[5]

LEGEND:
Captec Engineering, Inc. (Captec)[1]
Andersen Andre Consulting Engineers, Inc. (AACE)[2]
Betsy Lindsay, Inc. (Betsy Lindsay)[3] ▲
Blood Hound, LLC (Blood Hound)[4]
SEARCH, Inc. (SEARCH)[5] ▲ ■

▲ Denotes MBE Firm ■ Denotes WBE

40+ Florida water, wastewater and reclaimed water staff, plus 1,300 total staff to support the City, as needed.

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THE CONTRACT

(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS PROJECT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
C. Robert Reiss, PhD, PE	**Principal-in-Charge**	29	23

15. FIRM NAME AND LOCATION *(City and State)*

CHA Consulting, Inc.
Melbourne, FL

16. EDUCATION *(Degree and Specialization)*	17. CURRENT PROFESSIONAL REGISTRATION *(State and Discipline)*
University of Central Florida, FL, Ph.D., Environmental Engineering University of Central Florida, FL, M.S.E., Environmental Engineering University of Central Florida, FL, B.S.E., Environmental Engineering University of Central Florida, FL, B.S.E., Civil Engineering	Professional Engineer - FL, CA, Bahamas

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

American Water Works Association (AWWA), American Membrane Technology Association, American Society of Civil Engineers, Bahamas Society of Engineers, Caribbean Desalination Association, Southeast Desalting Association, International Community Board, University of Central Florida

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*

Replacing Concentrate Pipe at the Prineville Reverse Osmosis (RO) WTF
Port St. Lucie, FL

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
2011	2011

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

[X] Check if project performed with current firm

Principal-in-charge for improvements to the RO facility, including demolishing a post-treatment structure, designing proposed standpipe and designing appurtenances, including air release valve (ARV), piping supports and instrumentation connections. Also provided construction inspection services.

b.

(1) TITLE AND LOCATION *(City and State)*

St. Lucie West Services District, RO WTP Expansion
Port St. Lucie, FL

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
2008	2008

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

[X] Check if project performed with current firm

Quality assurance/quality control (QA/QC) officer for the design of a 3.4 MGD expansion of a low-pressure RO (LPRO) WTP.

c.

(1) TITLE AND LOCATION *(City and State)*

30 Year Duration Consumptive Use Permit (CUP)
Melbourne, FL

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
2019	N/A

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

[X] Check if project performed with current firm

Project manager for the City's CUP with the St. Johns River Water Management District (SJRWMD). The City was the first municipality granted a 30-year CUP from the SJRWMD. The City uses alternative water sources (brackish groundwater and surface water) to supply its RO WTP and surface WTP, respectively. Following close cooperation and multiple pre-application meetings between SJRWMD, the City and CHA, a CUP application package was prepared and submitted to the SJRWMD to continue to meet the City's rising water demand over the next 30 years. The CUP application package included a groundwater and surface impact evaluation, a water conservation plan and a reclaimed water evaluation; these documents justified the need to increase the allocation of source waters, including adequate source-specific capacities (in excess of the combined allocation of 23.54 MGD) from each individual supply to allow for flexible operations between the two treatment facilities.

d.

(1) TITLE AND LOCATION *(City and State)*

Brackish RO Water Treatment Plant
Clearwater, FL

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
2015	2016

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

[X] Check if project performed with current firm

Project manager for the design of the City's new 6.25 MGD RO WTP #2. The design of the plant incorporates two treatment trains. The brackish groundwater blended with the concentrate from the City's RO WTP #1 is treated via RO to reduce the salt concentration, and the 5.25 MGD of permeate is then ozonated to oxidize the sulfides. The freshwater is oxidized with chlorine, filtered to remove the iron and then blended with the ozonated permeate. As the freshwater is relatively hard and alkaline, the blending of the freshwater and permeate results in stable water after minimum post-treatment. Treatment of the concentrate from RO WTP#1 was an innovative approach to conserve water.

e.

(1) TITLE AND LOCATION *(City and State)*

Finished Water Post Stabilization Evaluation
Vero Beach, FL

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
2018	N/A

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

[X] Check if project performed with current firm

QA/QC for evaluating finished water stability following the expansion of the City's RO WTP and reduced blending with lime softened water. Water chemistry was evaluated using the RTW stoichiometry model.

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THE CONTRACT

(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS PROJECT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
Stefano Ceriana, PE, LEED AP	**Project Manager**	21	7

15. FIRM NAME AND LOCATION *(City and State)*

CHA Consulting, Inc.
Winter Springs, FL

16. EDUCATION *(Degree and Specialization)*	17. CURRENT PROFESSIONAL REGISTRATION *(State and Discipline)*
Worcester Polytechnic Institute, MA, M.S., Environmental Engineering Worcester Polytechnic Institute, MA, B.S., Civil/ Environmental Engineering	Professional Engineer - FL LEED® Accredited Professional FDOT Certification Transportation Approved Temporary Traffic Control (TTC) Intermediate Course, No. 41174

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

American Water Works Association (AWWA)

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*

Ernie Caldwell Reclaimed Water Main Improvements
Polk County, FL

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
2020	2020

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

[X] Check if project performed with current firm

Project manager for the preliminary and final design, permitting, bidding, and construction administration services to complete a reclaimed water main loop in the ECB and US Highway 17/92 corridors. The project consisted of 10,300 feet of 20-inch reclaimed water main within the ECB corridor extending from Posner Center to a future roadway connection with Ridgewood Lakes Phase 2. The design included considering a future alignment of a 20-inch potable water main and 16- to 20-inch wastewater force main that will parallel the reclaimed water main equipment for remote operation and monitoring.

b.

(1) TITLE AND LOCATION *(City and State)*

East Service Area Potable Water and Reclaimed Water Storage and Repump Facility
Orange County, FL

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
2016	2016

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

[X] Check if project performed with current firm

Project engineer for a new storage and repump facility with a 2.5 MGD potable water GST, a 1.5 MG reclaimed water GST, yard piping, a 7,200 gpm potable water HSP system, a 6,000 gpm reclaimed water HSP system, a sodium hypochlorite storage and feed system, an operations building, electrical, emergency generator and fuel storage, instrumentation and SCADA, 5,000 feet of 36-inch potable water mains, 5,000 feet of 24-inch reclaimed water mains, 600 feet of gravity sewers, manholes, and 1,100 feet of 4-inch force main.

c.

(1) TITLE AND LOCATION *(City and State)*

Summerlake Park Boulevard 30-inch Force Main
Orange County, FL

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
2016	2016

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

[X] Check if project performed with current firm

Project engineer for installing approximately 5,300 feet of new 30-inch force main along Summerlake Boulevard to connect to an existing 30-inch force main to serve future development. The project consisted of preliminary design, final design, permitting, public involvement, and construction administration services.

d.

(1) TITLE AND LOCATION *(City and State)*

Eagle Circle Force Main Replacement
Seminole County, FL

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
2015	2015

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

[X] Check if project performed with current firm

Project manager for this force main replacement project that included preliminary design, final design, permitting, construction inspection, and construction administration services for 8,275 feet of 12-inch HDPE force main consisting of 259 feet of jack-and-bore within a 24-inch steel casing, 5,671 feet of pipe bursting, 1,331 feet of HDD and 1,014 feet of open cut to replace aging C-200 PVC and cast-iron pipe.

e.

(1) TITLE AND LOCATION *(City and State)*

C-200 Force Main Pipeline Replacement Preliminary Design Report and Design
Seminole County, FL

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
2019	2019

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

[X] Check if project performed with current firm

Project manager for the preliminary design report and design, permitting and construction administration of this pipeline replacement project. The preliminary design report included evaluating replacement techniques for approximately 22,000 feet (ranging in size from 12-inch to 20-inch) located throughout residential and commercial areas. The design made use of HDD, pipe bursting and jack-and-bore techniques to minimize disturbance above ground.

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THE CONTRACT

(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS PROJECT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
J. Richard Voorhees, PE	**Quality Manager**	45	4

15. FIRM NAME AND LOCATION *(City and State)*

CHA Consulting, Inc.
Winter Springs, FL

16. EDUCATION *(Degree and Specialization)*	17. CURRENT PROFESSIONAL REGISTRATION *(State and Discipline)*
Auburn University, AL, M.S., Civil/Environmental Engineering Auburn University, AL, B.S., Civil Engineering	Professional Engineer - FL BCEE certificate no. 98-20040

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

Life Member - Chi Epsilon Civil Engineering Honorary Fraternity, American Society of Civil Engineers, Water Environment Federation, American Water Works Association (AWWA), Florida Select Society of Sanitary Sludge Shovelers

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*: **Preliminary Design of Reclaimed Water Improvements** Haines City, FL

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: 2020 — CONSTRUCTION *(if applicable)*: N/A

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — [X] Check if project performed with current firm

Senior project engineer to perform the storage and pumping alternatives analysis to provide evaluation and preliminary design of an expansion to the City's reclaimed water storage and pumping infrastructure. The infrastructure included a reclaimed water storage tank, a low-pressure reuse transfer pump station, a high-pressure reuse pump station, telemetry controls, and other appurtenances to supply existing reuse customers and to enable future expansions to the City's reuse system. Assisted in obtaining 75% cooperative funding from the SWFWMD for the design and construction of this project.

b.

(1) TITLE AND LOCATION *(City and State)*: **Improvements and Expansion of the Lake Washington Surface WTP** Melbourne, FL

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: 2003 — CONSTRUCTION *(if applicable)*: 2003

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — [ ] Check if project performed with current firm

Mechanical process lead engineer and quality control reviewer for this project, which was the third and final phase of work to expand and improve the surface WTP to an ultimate capacity of 40 MGD. This project included intake structure improvements, new headworks screening and raw water pumping, backwash water treatment, water recovery pumping, powdered activated carbon addition and ozonation. Directly responsible for the design of the intake improvements, raw water screening/pumping and backwash water treatment and pumping.

c.

(1) TITLE AND LOCATION *(City and State)*: **Ormond Beach WTP Sodium Hypochlorite Generator and Lime Slaker Rehabilitation and Replacement** Ormond Beach, FL

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: 2020 — CONSTRUCTION *(if applicable)*: 2020

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — [X] Check if project performed with current firm

Senior project engineer for the preliminary and final design, developing bid documents and bidding assistance to repair the sodium hypochlorite generation units and replace the lime slaker units and upgrade the equipment with more modern and energy-efficient equipment while maintaining reliability and safe plant operations.

d.

(1) TITLE AND LOCATION *(City and State)*: **South Water Reclamation Facility (SWRF) Influent Pump Station (IPS) and Upgrades |** Orange County, FL

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: 2021 — CONSTRUCTION *(if applicable)*: 2021

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — [X] Check if project performed with current firm

Senior project engineer for the preliminary engineering of a 216 MGD peak flow wastewater pump station to handle incoming flow and in-plant recycles for up to 80 MGD of AADF capacity. Evaluated four alternatives to expand the existing influent pumping capacity of 120 MGD peak flow without interrupting service. The selected alternative included a new IPS to replace the existing pump station that was nearing the end of its useful life. The pump station relies on the existing screening structure and uses dual trench-style, self-cleaning wet wells using submersible pumps. The pumps will be variable speed using VFDs installed in a new electrical building and the existing electrical room.

e.

(1) TITLE AND LOCATION *(City and State)*: **North Brevard County WTP** Brevard County, FL

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: 1995 — CONSTRUCTION *(if applicable)*: 1995

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — [ ] Check if project performed with current firm

Project manager for this project that included the final design of a 1.5 MGD WTP expansion with a 3.5 MGD capacity forced draft tray aeration for hydrogen sulfide removal, a new 1.5 MGD enhanced lime softening process, new air-water backwash filters, lime sludge thickening, and new chemical feed facilities for lime, liquid alum, polymer carbon dioxide for re-carbonation, chlorination, and ammonia. The project design included a comprehensive treatability study for preliminary corrosion treatment determination and enhanced lime softening treatment for THM precursor removal.

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THE CONTRACT

(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS PROJECT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
Melanie Peckham, PE	**Senior Project Engineer**	17	10

15. FIRM NAME AND LOCATION *(City and State)*

CHA Consulting, Inc.
Winter Springs, FL

16. EDUCATION *(Degree and Specialization)*	17. CURRENT PROFESSIONAL REGISTRATION *(State and Discipline)*
University of Central Florida, FL, B.S.E., Environmental Engineering	Professional Engineer - FL

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

American Society of Civil Engineers, American Water Works Association (AWWA)

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*

Storey Park/Innovation Place Utility Project
Orange County, FL

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
2019	2019

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

[X] Check if project performed with current firm

Project manager for preliminary design, final design, permitting and construction services for installing more than 40,000 feet of large-diameter potable water main, reclaimed water main and force main to address projected future development. The project included environmental considerations, such as wetlands and endangered species. Specific installation methods used were open cut, horizontal directional drill (HDD) and jack-and-bore, including two locations where crossing of railroad right-of-way (ROW) was required.

b.

(1) TITLE AND LOCATION *(City and State)*

East Service Area (ESA) Potable Water and Reclaimed Water Storage and Repump Facility
Orange County, FL

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
2016	2016

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

[X] Check if project performed with current firm

Project manager for preliminary engineering, design, permitting, bidding, and construction administration for a new storage and repump facility with a 2.5 MG potable water GST, a 1.5 MG reclaimed water GST, yard piping, a 7,200gpm potable water HSP system, a 6,000 gpm reclaimed water HSP system, a sodium hypochlorite storage and feed system, an operations building, electrical, emergency generator and fuel storage, instrumentation and SCADA, 5,000 feet of 36-inch potable water mains, 5,000 feet of 24-inch reclaimed water mains, 600 feet of gravity sewers, manholes, and 1,100 feet of 4-inch force main.

c.

(1) TITLE AND LOCATION *(City and State)*

South Water Reclamation Facility (SWRF) Influent Pump Station (IPS) and Upgrades | Orange County, FL

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
2021	2021

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

[X] Check if project performed with current firm

Client service manager for the preliminary engineering of a 216 MGD peak flow wastewater pump station to handle incoming flow and in-plant recycles for up to 80 MGD of AADF capacity. Evaluated four alternatives to expand the existing influent pumping capacity of 120 MGD peak flow without interrupting service. The selected alternative included a new IPS to replace the existing pump station that was nearing the end of its useful life. The pump station relies on the existing screening structure and uses dual trench-style, self-cleaning wet wells using submersible pumps. The pumps will be variable speed using VFDs installed in a new electrical building and the existing electrical room.

d.

(1) TITLE AND LOCATION *(City and State)*

Summerlake Park Boulevard 30-inch Force Main
Orange County, FL

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
2016	2016

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

[X] Check if project performed with current firm

Project manager for installing 5,300 feet of 30-inch force main along Summerlake Park Boulevard to connect to an existing 30-inch force main to serve future development. The project consisted of conceptual routing analysis, final design, permitting, public involvement, and construction administration services.

e.

(1) TITLE AND LOCATION *(City and State)*

Normandy Boulevard Reclaimed Water Main Extension
Volusia County, FL

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
2018	2018

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

[X] Check if project performed with current firm

Project manager for the design, permitting and construction administration services for installing approximately 4,700 feet of 12-inch and 16-inch reclaimed water main along Normandy Boulevard, turning east on Graves Avenue and crossing Howland Boulevard. The reclaimed water main was installed primarily using HDD. The project was located within two municipal jurisdictions, Volusia County and the City of Deltona; it required ROW permitting with both agencies.

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THE CONTRACT

(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS PROJECT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
Antoine Sands, CEng., PMP	**Senior Project Engineer**	13	2

15. FIRM NAME AND LOCATION *(City and State)*

CHA Consulting, Inc.
Winter Springs, FL

16. EDUCATION *(Degree and Specialization)*	17. CURRENT PROFESSIONAL REGISTRATION *(State and Discipline)*
Florida International University, FL, M.S., Engineering Management California State University, CA, B.S., Mechanical Engineering	Engineering Council - Chartered Engineer (CEng #669038) Project Management Professional (PMP) No. 2146301 Certified Maintenance and Reliability Professional (CMRP)

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

American Society of Mechanical Engineers (ASME), Bahamas Society of Engineers (BSE) - Past Vice President

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*: **South Water Reclamation Facility (SWRF) Influent Pump Station (IPS) and Upgrades |** Orange County, FL

(2) YEAR COMPLETED	
PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
2021	2021

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — [X] Check if project performed with current firm

Project engineer for the preliminary engineering of a 216 MGD peak flow wastewater pump station to handle incoming flow and in-plant recycles for up to 80 MGD of AADF capacity. Evaluated four alternatives to expand the existing influent pumping capacity of 120 MGD peak flow without interrupting service. The selected alternative included a new IPS to replace the existing pump station that was nearing the end of its useful life. The pump station relies on the existing screening structure and uses dual trench-style, self-cleaning wet wells using submersible pumps. The pumps will be variable speed using VFDs installed in a new electrical building and the existing electrical room.

b.

(1) TITLE AND LOCATION *(City and State)*: **Pump Station Rehabilitation/Replacement Package 22 Improvements** Orange County, FL

(2) YEAR COMPLETED	
PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Ongoing	TBD

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — [X] Check if project performed with current firm

Project engineer for the preliminary design, final design, bidding, public notification, and construction administration services for rehabilitating five duplex pump stations. Work included replacing submersible pumps and accessories, wet well top slab and valve vault access hatches, replacing discharge piping and valves, lining the wet well and upstream manhole, a new driveway, fencing and a gate, and new electrical and SCADA equipment. The project included bypass pumping and coordinating work within residential areas with limited space.

c.

(1) TITLE AND LOCATION *(City and State)*: **Softening Tanks Rehabilitation and Acid Skid** Vero Beach, FL

(2) YEAR COMPLETED	
PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Ongoing	TBD

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — [X] Check if project performed with current firm

Project engineer for preliminary design, final design and bidding services for rehabilitating accelator no. 3 and accelator no. 4 by removing and replacing all steel coatings in these two tanks and making limited repairs to surfaces and structural framing that have experienced severe corrosion and present a potential concern for future failures.

d.

(1) TITLE AND LOCATION *(City and State)*: **Northwest Regional WWTP** Polk County, FL

(2) YEAR COMPLETED	
PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
2013 (worked for CHA previously)	2013 (worked for CHA previously)

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — [X] Check if project performed with current firm

Project Engineer and construction administration for the plant modification and capacity upgrade from 1 MGD to 3 MGD.

e.

(1) TITLE AND LOCATION *(City and State)*: **Potable Water Distribution Quality Improvements/Pipebursting CEI Services |** Orange City, FL

(2) YEAR COMPLETED	
PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
2019	2019

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — [X] Check if project performed with current firm

Project engineer to conduct CEI for pipe rehabilitation (pipe bursting) and looping projects within the City's system. Additionally, the City requested that CHA locate areas within the distribution system, through hydraulic modeling, to recommend pressure reducing valve (PRV) locations to improve the distribution system hydraulic balance.

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THE CONTRACT

(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS PROJECT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
Eric Gassen, EI	**Project Engineer**	7	6

15. FIRM NAME AND LOCATION *(City and State)*

CHA Consulting, Inc.
Winter Springs, FL

16. EDUCATION *(Degree and Specialization)*	17. CURRENT PROFESSIONAL REGISTRATION *(State and Discipline)*
University of Central Florida, FL, B.S., Civil Engineering Indian River State College, FL, A.A.	Engineer Intern - FL

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*

Lift Station 20 (LS 20) Force Main Design
Melbourne, FL

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
2019	2019

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

[X] Check if project performed with current firm

Project engineer/construction engineering inspection (CEI) for this project that included subcontracting survey and geotechnical services to perform work, preparing 60%, 100% and bid documents, providing permitting services, providing bidding assistance services, and subcontracting soft digs to locate potential conflicting utilities. CHA also provided administrative and technical services required to complete the construction according to the contract documents, and for CHA, the EOR, to sign and seal the record drawings and certify project completion.

b.

(1) TITLE AND LOCATION *(City and State)*

Lift Station #106 Rehabilitation
Polk County, FL

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
2016	2016

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

[X] Check if project performed with current firm

Project engineer for the preliminary design, permitting and final design of a 1.7 MGD master wastewater lift station rehabilitation. Provided addenda to answer contractor questions throughout the bid process and evaluated the contractors. The design involved evaluating present/future flows to determine lift station operations, three new high-service pumps with variable frequency drives (VFDs), a permanent emergency generator with a fuel storage tank, a new discharge piping configuration to add a flow meter, and bypass piping. The project also included an emergency pump-out connection, odor control and a climate-controlled control building.

c.

(1) TITLE AND LOCATION *(City and State)*

SSNOCWTA Professional Engineering Services
Seminole and Orange Counties, FL

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Ongoing	Varies

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

[X] Check if project performed with current firm

Project engineer for wastewater program management services. Tasks include design, permitting, construction administration, surveying, utility locates, subsurface utility investigations, capital improvement plan management, asset rehabilitation and replacement, emergency response, operation and maintenance support, I&I program implementation, and master plan and capital improvements plan budget updates. Efforts also involve managing continuing contractors and procuring vendor/ contractor proposals and contracts.

d.

(1) TITLE AND LOCATION *(City and State)*

Storey Park/Innovation Place Utility Project
Orange County, FL

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
2019	2019

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

[X] Check if project performed with current firm

Project engineer for preliminary design, final design, permitting and construction services for installing more than 40,000 feet of large-diameter potable water main, reclaimed water main and force main to address projected future development. The project included environmental considerations, such as wetlands and endangered species. Specific installation methods used were open cut, horizontal directional drill (HDD) and jack-and-bore, including two locations where crossing of railroad right-of-way (ROW) was required.

e.

(1) TITLE AND LOCATION *(City and State)*

Ernie Caldwell Reclaimed Water Main Improvements
Polk County, FL

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
2020	2020

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

[X] Check if project performed with current firm

Project engineer for preliminary and final design, permitting, bidding, and construction administration services to complete a reclaimed water main loop in the Ernie Caldwell Boulevard and US 17/92 corridors. The design included considering the future alignment of a 20-inch potable water main and 16- to 20-inch wastewater force main that will parallel the reclaimed water main equipment for remote operation and monitoring.

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THE CONTRACT
(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS PROJECT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
Eric Knoppel, EI	**Project Engineer**	4	4

15. FIRM NAME AND LOCATION *(City and State)*

CHA Consulting, Inc.
Winter Springs, FL

16. EDUCATION *(Degree and Specialization)*	17. CURRENT PROFESSIONAL REGISTRATION *(State and Discipline)*
University of Central Florida, FL, M.S., Environmental Engineering University of Central Florida, FL, B.S., Environmental Engineering	Engineer Intern - FL

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

Water Environmental Federation, Student Liaison for FWEA Central Florida Chapter Board

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*

Wastewater and Reclaimed Water Pressure Pipe Assessment Program
Largo, FL

(2) YEAR COMPLETED	
PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
2019	N/A

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

[X] Check if project performed with current firm

Project engineer for reclaimed water hydraulic modeling (WaterCAD), GIS mapping and figures, improvement alternatives, wastewater and reclaimed water CIP, condition assessment of wastewater and reclaimed water pipes, and reclaimed water recommended improvements.

b.

(1) TITLE AND LOCATION *(City and State)*

SSNOCWTA Air Release Valve (ARV) and Cleaning Maintenance Program
Seminole and Orange Counties, FL

(2) YEAR COMPLETED	
PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Varies per project	N/A

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

[X] Check if project performed with current firm

Project engineer for the ARV cleaning and maintenance program. The Authority is composed of several local municipalities and counties that form the member entities to regionalize their wastewater treatment and transmission to obtain optimum efficiencies in wastewater treatment. The system consists of 32 pump stations (design capacity of 47 MGD) and major transmission mains (16- to 42-inch diameter) to meet member entities' needs in relationship to transmission of wastewater to a regional WWTP. Program management responsibilities included design, permitting and construction administration services; surveying, utility locates, and subsurface utility investigations; managing continuing contractors; capital improvement plan (CIP) management; vendor/contractor proposals and contract procurement; asset rehabilitation and replacement; emergency response services (loss of power, pump station overflows, and pipeline incidents; operation and maintenance (O&M) support; inflow and infiltration (I&I) program implementation; facilities maintenance tracking and management; board meeting participation; extension of staff; and updates to the master plan and CIP budget.

c.

(1) TITLE AND LOCATION *(City and State)*

Ernie Caldwell Reclaimed Water Main Improvements
Polk County, FL

(2) YEAR COMPLETED	
PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
2020	2020

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

[X] Check if project performed with current firm

Project engineer for preliminary and final design, permitting, bidding, and construction administration services to complete a reclaimed water main loop in the Ernie Caldwell Boulevard and US 17/92 corridors. The design included considering the future alignment of a 20-inch potable water main and 16- to 20-inch wastewater force main that will parallel the reclaimed water main equipment for remote operation and monitoring.

d.

(1) TITLE AND LOCATION *(City and State)*

SSNOCWTA Hydraulic Modeling
Maitland, FL

(2) YEAR COMPLETED	
PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Ongoing	N/A

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

[X] Check if project performed with current firm

Project engineer to assist with data collection for the existing flows, model structure update for the force main system (WaterCAD), existing flow update for each of the systems lift stations, diurnal flow update, wastewater scenario management for existing forced flow, existing all stations N-1 pumps on, existing extended period simulation with pumps in auto, future forced flow. Performed field data collection and processing and model verification and capacity assessment.

e.

(1) TITLE AND LOCATION *(City and State)*

Westport WWTF Expansion
Port St. Lucie, FL

(2) YEAR COMPLETED	
PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
2021	TBD

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

[X] Check if project performed with current firm

Project engineer responsible for sampling and lab analysis, wastewater characterization, flow projections and design flows, influent and effluent parameter distribution and analysis, effluent design targets, liquid and solids process flow diagrams, biological modeling and evaluation, plant hydraulics, filter dosing pump design and modeling, anoxic/aeration design, and basis of design and preliminary design report.

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THE CONTRACT

(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS PROJECT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
Ed Talton, PE	**Hydraulic Modeling**	30	21

15. FIRM NAME AND LOCATION *(City and State)*

CHA Consulting, Inc.
Winter Springs, FL

16. EDUCATION *(Degree and Specialization)*	17. CURRENT PROFESSIONAL REGISTRATION *(State and Discipline)*
University of Florida, M.S.E., Environmental Engineering, University of Florida, FL, B.S.E., Environmental Engineering University of Kentucky, KY, Hydraulic Surge Modeling Training	Professional Engineer - FL

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

American Water Works Association (AWWA)

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*

Morris Bridge Pump Station Improvements
Tampa, FL

(2) YEAR COMPLETED	
PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
2020	2020

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

[X] Check if project performed with current firm

Project engineer performing hydraulic and transient (surge) analyses and preliminary engineering to size and configure modifications to the key Morris Bridge pump station. Developed an innovative concept to boost new Tampa low pressures.

b.

(1) TITLE AND LOCATION *(City and State)*

Potable and Reclaimed Water Systems Master Plan and Hydraulic Model Update
Altamonte Springs, FL

(2) YEAR COMPLETED	
PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
2017	N/A

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

[X] Check if project performed with current firm

Client/project manager to perform and summarize various technical evaluations on the potable water and reclaimed water systems, including hydraulic modeling, to develop capital improvement projects. Developed an implementation schedule for the City to expand, repair, replace, and maintain the potable and reclaimed water systems to economically meet the City's service standards for over 10 years.

c.

(1) TITLE AND LOCATION *(City and State)*

Continuing Hydraulic Modeling Services
Orange County, FL

(2) YEAR COMPLETED	
PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Varied per project	N/A

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

[X] Check if project performed with current firm

Project manager for a continuing engineering services contract to provide hydraulic modeling for the County to update, optimize and utilize potable water, wastewater and reclaimed water system hydraulic models. The engineering services included utilizing hydraulic models to support utilities planning, including recommending capital improvements projects, design, operation, and regulatory compliance.

d.

(1) TITLE AND LOCATION *(City and State)*

Consumer Court Lift Station Hydraulic Modeling and Permitting
Ocoee, FL

(2) YEAR COMPLETED	
PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
2015	N/A

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

[X] Check if project performed with current firm

Client manager and quality assurance/quality control (QA/QC) for a hydraulic analysis to size the lift station components and confirm an existing gravity main could accept the flow from the new force main and gravity system connection along SR 50. The hydraulic analyses were used for the general FDEP permit approval. A jurisdictional wetland delineation and evaluation was completed to obtain the Environmental Resource Permit (ERP) and the United States Army Corps of Engineers (USACE) permit.

e.

(1) TITLE AND LOCATION *(City and State)*

Wastewater Capacity Analysis
Davenport, FL

(2) YEAR COMPLETED	
PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
2018	N/A

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

[X] Check if project performed with current firm

QA/QC review of the hydraulic model used to evaluate the capacity of the WWTF, lift stations and the force mains. CHA developed a wastewater hydraulic model of the entire system utilizing InfoSWMM to address City concerns about capacity, condition and ability to service new and future development.

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THE CONTRACT

(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS PROJECT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
Mark Worsham, PE	**Pipeline Design**	36	16

15. FIRM NAME AND LOCATION *(City and State)*

CHA Consulting, Inc.
Melbourne, FL

16. EDUCATION *(Degree and Specialization)*	17. CURRENT PROFESSIONAL REGISTRATION *(State and Discipline)*
Virginia Polytechnic Institute and State University, VA, B.S., Civil Engineering Virginia Polytechnic Institute and State University, VA, B.D., Agricultural Engineering	Professional Engineer - FL, VA

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

American Water Works Association (AWWA), American Membrane Technology Association (AMTA)

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*

Midport Water Repump Station Improvements
Port St. Lucie, FL

(2) YEAR COMPLETED	
PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
2009	2009

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

[X] Check if project performed with current firm

Performed project management, mechanical system design and design team coordination for upgrading a 10 MGD water pumping facility, including a new 2 MG storage tank. Also served as project manager for the building, mechanical system, electrical system, and instrumentation control system inspections during construction of the $5 million upgrades.

b.

(1) TITLE AND LOCATION *(City and State)*

Rangeline RO WTP
Port St. Lucie, FL

(2) YEAR COMPLETED	
PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
2009	2009

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

[X] Check if project performed with current firm

Performed the mechanical system design and design team coordination for the storage and re-pump phase of a 10 MGD RO water treatment facility, expandable to 30 MGD. Project lead for the building, mechanical system, electrical system, and instrumentation and control system inspections during construction of the $12 million facility.

c.

(1) TITLE AND LOCATION *(City and State)*

East Service Area Potable Water and Reclaimed Water Storage and Repump Facility | Orange County, FL

(2) YEAR COMPLETED	
PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
2016	2016

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

[X] Check if project performed with current firm

Project engineer for preliminary engineering, design, permitting, bidding, and construction administration for a new storage and repump facility with a 2.5 MG potable GST, a 1.5 MG reclaimed water GST, yard piping, a 7,200-gpm potable water high-service pump system, a 6,000-gpm reclaimed water high-service pump system, a sodium hypochlorite storage and feed system, an operations building, electrical, emergency generator and fuel storage, instrumentation and SCADA, 5,000 feet of 36-inch potable water mains, 5,000 feet of 24-inch reclaimed water mains, 600 feet of gravity sewers, manholes, and 1,100 feet of 4-inch force main.

d.

(1) TITLE AND LOCATION *(City and State)*

Pineda Causeway Water Transmission Main Design
Melbourne, FL

(2) YEAR COMPLETED	
PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Ongoing	TBD

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

[X] Check if project performed with current firm

Project manager for the design, bidding and construction-phase services for a 20-inch HDPE water main installed via subaqueous horizontal directional drilling (HDD) under the Banana and Indian Rivers and 16-inch ductile iron piping for the portion to be attached to the main bridge structure with expansion and contraction control devices, isolation valves and air release valves. The project replaces aging infrastructure, improves water quality, fireflow, and creates redundancy for the beachside residents.

e.

(1) TITLE AND LOCATION *(City and State)*

Northeast Water Repump Station and Transmission Main Design and Construction | St. Cloud, FL

(2) YEAR COMPLETED	
PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
2020	2020

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

[X] Check if project performed with current firm

Project lead for the building, mechanical system, electrical system, and instrumentation and control system inspections during construction of the $5 million facility. The final facility consisted of storage and repump capacity capable of providing peak hourly flows of 6.4 MGD. Based on the requirement for the high-service pumps to provide design fire flows and maximum-day flows for a period of four hours, a 0.75 MG tank was required. Therefore, this project included one 85-foot diameter GST with 0.75 MG of storage capacity and the design and construction of 2,800 feet of 16-inch water main to connect the Northeast Water Repump Station to the existing transmission system, approximately 0.50 miles west of the project site. CHA also designed the layout for the high-service pump/chemical feed building, which included separate rooms for the high-service pumps, the electrical and control equipment and the chlorine feed system.

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THE CONTRACT

(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS PROJECT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
Scott Hoxworth, PE	**Pipeline Design**	23	18

15. FIRM NAME AND LOCATION *(City and State)*

CHA Consulting, Inc.
Winter Springs, FL

16. EDUCATION *(Degree and Specialization)*	17. CURRENT PROFESSIONAL REGISTRATION *(State and Discipline)*
University of Central Florida, FL, M.S., Environmental Engineering University of Central Florida, FL, B.S., Environmental Engineering	Professional Engineer - FL

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

Water Environment Federation

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
East Service Area Potable Water and Reclaimed Water Storage and Repump Facility | Orange County, FL	2016	2016

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — [X] Check if project performed with current firm

Project engineer for preliminary engineering, design, permitting, bidding, and construction administration for a new storage and repump facility with a 2.5 MG potable GST, a 1.5 MG reclaimed water GST, yard piping, a 7,200-gpm potable water high-service pump system, a 6,000-gpm reclaimed water high-service pump system, a sodium hypochlorite storage and feed system, an operations building, electrical, emergency generator and fuel storage, instrumentation and SCADA, 5,000 feet of 36-inch potable water mains, 5,000 feet of 24-inch reclaimed water mains, 600 feet of gravity sewers, manholes, and 1,100 feet of 4-inch force main.

b.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Pineda Causeway Water Transmission Main Design Melbourne, FL	Ongoing	TBD

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — [X] Check if project performed with current firm

Project engineer for the design, bidding and construction-phase services for a 20-inch HDPE water main installed via subaqueous horizontal directional drilling (HDD) under the Banana and Indian Rivers and 16-inch ductile iron piping for the portion to be attached to the main bridge structure with expansion and contraction control devices, isolation valves and air release valves. The project replaces aging infrastructure, improves water quality, fireflow, and creates redundancy for the beachside residents.

c.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Normandy Boulevard Reclaimed Water Main Extension Volusia County, FL	2018	2018

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — [X] Check if project performed with current firm

Project engineer for the design, permitting and construction administration services for installing approximately 4,700 feet of 12-inch and 16-inch reclaimed water main along Normandy Boulevard, turning east on Graves Avenue and crossing Howland Boulevard. The reclaimed water main was installed primarily using HDD. The project was located within two municipal jurisdictions, Volusia County and the City of Deltona; it required ROW permitting with both agencies.

d.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Rangeline Transmission Mains Port St. Lucie, FL	2009	2009

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — [X] Check if project performed with current firm

Project engineer for the design, permitting, QA/QC review, and construction inspection services for 10 miles of water, wastewater, and reclaimed water pipelines utilizing HDD, jack-and-bore trenchless technology, and traditional trench excavation installation. Permitting services for this project included approvals for county ROW, a railway crossing, a wetland crossing, and water and wastewater FDEP construction certification.

e.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Storey Park/Innovation Place Utility Project Orange County, FL	2019	2019

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — [X] Check if project performed with current firm

Construction engineer for preliminary design, final design, permitting and construction services for installing more than 40,000 feet of large-diameter potable water main, reclaimed water main and force main to address projected future development. The project included environmental considerations, such as wetlands and endangered species. Specific installation methods used were open cut, horizontal directional drill (HDD) and jack-and-bore, including two locations where crossing of railroad right-of-way (ROW) was required.

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THE CONTRACT

(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS PROJECT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
Charles Warren	**CEI**	8	<1

15. FIRM NAME AND LOCATION *(City and State)*

CHA Consulting, Inc.
Melbourne, FL

16. EDUCATION *(Degree and Specialization)*	17. CURRENT PROFESSIONAL REGISTRATION *(State and Discipline)*

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

AWS Professional Development (40 Hours), NEC Level 2 Burg Technician , PEC Safety Certification, Polyethylene Pipe certification F2620, Veriforce OQ Certified in Line Locates, Damage Prevention of Excavating and Backfill, Locate Buried Facilities, ROW Observation

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*
Hacienda Compressor Station
Reeves County, TX

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
2016	2016

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

[ ] Check if project performed with current firm

Co-inspector for construction oversight of incoming pipelines. The project included placing and piping of all vessels and compressors. Ordered necessary supplies, completed hydrostatic testing of pipes and worked with third-party contractors to complete the project in a timely manner.

b.

(1) TITLE AND LOCATION *(City and State)*
Basic Energy, Guitar Ranch Pipeline
Big Spring, TX

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
2019	2019

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

[ ] Check if project performed with current firm

Main inspector for construction oversight on the pipeline. The project included work on a 14-inch polyethylene line, two I-20 road bores and two feeder roads. Responsible for ordering materials, designing risers, placing valves, and inspection on-site.

c.

(1) TITLE AND LOCATION *(City and State)*
Howard Energy, Permian Oil Gathering Lateral
Loving County, TX

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
2016	2016

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

[ ] Check if project performed with current firm

Main inspector for construction oversight of the 6-inch steel line weld inspection.

d.

(1) TITLE AND LOCATION *(City and State)*
Lindsay SWD Booster Station
Loving County, TX

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
2017	2017

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

[ ] Check if project performed with current firm

Main inspector for installing all piping at the station. Project included installing 8-inch polyethylene line, tying into existing lines and setting tanks.

e.

(1) TITLE AND LOCATION *(City and State)*
MINI Lateral B-1
Loving County, TX

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
2013	2013

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

[ ] Check if project performed with current firm

Main inspector for construction oversight of a 6-inch steel line and polyethylene weld inspection.

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
Steven Marquart, P.E.	Pipeline Design/Permitting	40	12

15. FIRM NAME AND LOCATION (City and State)

CAPTEC Engineering, Inc. (Stuart, Florida)

16. EDUCATION (Degree and Specialization)	17. CURRENT PROFESSIONAL REGISTRATION (State and Discipline)
B.S. Civil Engineering, University of Florida, 1980	Professional Engineer in the State of Florida (License No. 34879)

18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)

Mr. Marquart has over 40 years of experience including site engineering, permitting, and construction administrative services for the installation of roadway, drainage, and water and sewer utilities improvements for the initial and secondary phases of projects, as well as extensive experience in environmental, dredge and fill, Dept. of Environmental Protection, Dept. of Transportation, US ACOE, and various Water Management Districts permitting. Mr. Marquart is a Qualified Stormwater Management Inspector. Member of FL Engineering Society (FES) Treasure Coast; American Society of Civil Engineers National Society of Professional Engineers; FDOT Advanced MOT Certification

19. RELEVANT PROJECTS

A.

(1) TITLE AND LOCATION (City and State)

Southport Backbone 24-inch Force Main Improvements (Port St. Lucie, FL)

(2) YEAR COMPLETED	
PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
Dec 2017–April 2020	2019 - 2020

(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE

[X] Check if project performed with current firm

Mr. Marquart was the Sr. Project Manager/ Engineer for providing design, permitting, and bidding services for this project to replace an existing 12-inch force main, with 24-inch force main, to increase capacity and operating pressures. The approximate 22,300 ft. force main route began at Tiffany Avenue and Highway U.S. 1, continues south along Morningside Blvd. through the City's Saints' Golf Course, down Pine Valley Street to the Southport Wastewater Booster Pump Station. The route contained multiple horizontal directional drill installation and roadway crossings, including Highway U.S. 1 at Tiffany Avenue/ Lyngate Drive, Port St. Lucie Blvd. at Morningside Blvd., and Westmoreland Blvd. at Pine Valley Street. This project required minimal disruption to the residents. CAPTEC prepared an FDOT permit application for the installation of a CITY wastewater collection/ transmission system in the FDOT rights of way along the force main route and submitted to the City of Port St. Lucie for review prior to submitting to FDOT permitting agency. This project utilized fusible PVC pipe which provided significant savings to PSL Utilities. Consultant Cost $611,765.00

B.

(1) TITLE AND LOCATION (City and State)

Village of Indiantown Water and Wastewater Utility Master Plan (Indiantown, FL)

(2) YEAR COMPLETED	
PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
April 2021 to current	

(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE

[X] Check if project performed with current firm

Mr. Marquart is the St. Project Manager/ Engineer for currently preparing Master Planning and Agency coordination Services for Water and Wastewater Utilities. Services include coordination and data collection services to review the existing information, prepare a study and develop future water and wastewater flow projections, provide existing conditions assessments for water and wastewater capacity, and prepare future water and wastewater systems analysis/ needs list/ prioritization and Master Plan Report. Consultant Cost: $305,700.00

C.

(1) TITLE AND LOCATION (City and State)

Westport Wastewater Treatment Facility Expansion (Port St. Lucie, FL)

(2) YEAR COMPLETED	
PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
2018 to 2020	Pending

(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE

[X] Check if project performed with current firm

Mr. Marquart was the Sr. Project Engineer for assisting CHA Consulting, Inc. in the design, permitting, bidding and will assist in construction services when started for this two-phased expansion project. Services entailed preparing an updated stormwater master plan to accommodate multiple ASR wells and to provide final engineering for the ASR well, two monitoring wells and the injection well. Updated design plans to include facility layout, erosion and sediment control, access roadwork, grading around well heads, drainage improvements, etc. Consultant Cost: $ 98,500.00

D.

(1) TITLE AND LOCATION (City and State)

5601 South Kanner Highway Land Use Change – Kanner Lakes (Stuart, FL)

(2) YEAR COMPLETED	
PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
2019 to 2020	On-going

(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE

[X] Check if project performed with current firm

Mr. Marquart is the Sr. Project Manager/ Engineer for providing design, permitting and construction admin services are on-going for this 30-acre parcel which consists of Single Family and Commercial property. The construction plans included on-site paving, grading, drainage, stormwater management, water and sewer improvements as required by Martin County Land Development regulations, FDEP and SFWMD regulatory criteria and the addition of an FDOT turn lane. Consultant Cost: $377,750.00

E.

(1) TITLE AND LOCATION (City and State)

Tropical Farms Water Main/ Force Main Design Martin County (Stuart, FL)

(2) YEAR COMPLETED	
PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
2008 - 2009	2010

(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE

[X] Check if project performed with current firm

Mr. Marquart was the Sr. Project Manager/ Engineer for providing design, permitting and construction administration services for adding 16-inch and 24-inch water mains from the Tropical Farms Water Treatment Plant to Cove Rd. This required directional drilling under FL Turnpike, I-95 and South Fork of the St. Lucie River. Permits prepared for FDEP, FDOT, ACOE and MCU Dept. Later, CAPTEC provided redesign and adjustments to the existing plan to relocate water mains from inside Gaines Avenue right-of-way onto the Tres Belle property easement. Consultant Cost: $ 285,800.00

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
Harold Tourjee	Pipeline Design/Permitting	34	19

15. FIRM NAME AND LOCATION (City and State)

CAPTEC Engineering, Inc. (Stuart, Florida)

16. EDUCATION (Degree and Specialization)	17. CURRENT PROFESSIONAL REGISTRATION (State and Discipline)
Ph.D. Studies, Plasma Physics, University of Austin, TX ; M.S. Physics, University of Texas, 1984; B.S Physics, University of Texas, 1983	

18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)

Mr. Tourjee has over 34 years of experience in the analysis and design of drainage and stormwater utilities systems, water distribution and sanitary sewer collection systems, land development, and municipal highway and roadway projects. Mr. Tourjee coordinates utilities for confirming location of the Coastal Construction Control Line (CCCL) with FDEP and the Bureau of Beaches and Coastal Systems. Additionally, Mr. Tourjee is expert in computer programming/software packages including the Highway Capacity Analysis Program, Santa Barbara/SCS Hydrograph-Flood Routing Analysis Programs, AdICPR Drainage Analysis Program, and the KYPIPE Piping Network Analysis Program. Mr. Tourjee is also proficient in computer drafting, mapping and design using the latest versions of AutoCAD (Autodesk Civil 3D 2020 Certification), ICPR Versions 3 & 4 and Erosion Control Certification, BMP Trains Version 2.0.2, Math CAD and Highway Capacity Software (HCS) Version 7. St. Lucie County School District 2008 Volunteer of the Year; USGBC, South FL Chapter, Treasure Coast; FDOT Advanced MOT and LAP Certifications; FDOT State Kit & FDOT Connect; FDOT Greenbook Series.

19. RELEVANT PROJECTS

A.

(1) TITLE AND LOCATION (City and State)

Midway Road Water Main Improvements (Port St. Lucie, FL)

(2) YEAR COMPLETED	
PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
Aug. 2016 to currently on-hold	

(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE

[X] Check if project performed with current firm

Mr. Tourjee is the Sr. Project Design Manager for providing construction plans for a 24-inch water main from the intersection of Midway Road and LTC Parkway westward to the west end of the FPL substation, just west of I-95. Cost estimates have been provided for the proposed water main. Other alternate routes were provided, for review and selection made by the City of Port St. Lucie. Based upon the selection of the final pipeline alignment route, CAPTEC utilized City Base Maps and field surveying to prepare plans with the addition of 30-inch raw water main and a 2-inch fiber optic conduit to be installed in the existing easement. This project requires major horizontal directional drilling under I-95, as well as other locations, to assist in avoiding conflicts with other utilities. This project included Final Design, Cost Estimates, Permitting, Bid Assistance with Technical Specifications and a bid schedule. Also, the addition of sketch and legal descriptions for three permanent utility easements were added. The City decided to remove the RAW water main from the construction plans so the plans were revised again. Consultant Cost $170,290.00

B.

(1) TITLE AND LOCATION (City and State)

Rio Infill Water and Sanitary Sewer CDBG Phase 2 Improvements (Stuart, FL)

(2) YEAR COMPLETED	
PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
2018	2019

(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE

[X] Check if project performed with current firm

Mr. Tourjee was the Sr. Project Design Manager for preparing final design plans for the 1,600 FL of water distribution system and sewage collection facilities. Field reconnaissance was provided to locate all septic tanks & wells. Permit applications were required FDEP and Martin County Utilities Dept. for services to be provided to the properties in the Rio CRA. Consultant Cost: $ 51,900.00

C.

(1) TITLE AND LOCATION (City and State)

Kanner Highway Widening from I-95 to Indian Street Utility Conflicts (Stuart, FL)

(2) YEAR COMPLETED	
PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
Nov. 2014 to 2017	2016 - 2017

(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE

[X] Check if project performed with current firm

Mr. Tourjee was the Sr. Project Design Manager for the design and permitting services to MCU for the relocation of the existing 12" water main and force main on the S.R. 76 Bridge over the South Fork of the St. Lucie River along Kanner Highway. The existing utility lines were replaced via horizontal directional boring that was successfully completed under the St. Lucie River. These lines are adjacent to the Tropical Farms water main and force main projects that CAPTEC previously permitted for MCU from Cove Rd. to the Tropical Farms Wastewater Treatment Plant on Kansas Ave. This work included plans with permitting across Martin County Rights-of-way (ROW)/ FDOT I-95 ROW and the FDOT Turnpike ROW. This project also entailed a detailed investigation into the utility conflicts that the County may have within the Kanner Highway (SR 76) Corridor between the I-95 Interchange and Indian Street in Martin County Utilities Service Area and within the limits of FDOT and Kanner Highway (SR 76) Roadway Improvements. Consultant Cost: $192,100.00

D.

(1) TITLE AND LOCATION (City and State)

Martin County Airport Water & Sewer Utility Improvements (Stuart, FL)

(2) YEAR COMPLETED	
PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
2011 -2012	2013

(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE

[X] Check if project performed with current firm

Mr. Tourjee was the Sr. Project Design Manager for the design and permitting of infrastructure improvements including replacing an aging wastewater system, extending existing water service to improve drinking water pressure and Airport Road improvements. This project involved design, rehabilitation, and refurbishment of 2 master lift stations, abandonment of 5 lift stations, installation of 4,000 LF of sanitary sewer mains and 1,700 LF of potable water mains, meters and fire hydrant to serve the Martin County Airport. In addition, provided tie-in services to the remaining areas of the Airport to obtain proper metering and sanitary sewer services, which allowed billing of these services to all individual businesses at the Airport. This project had several Grants to coordinate, which installing a new sanitary water & sewer system was required. Consultant Cost: $125,000.00

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
Teresa (Teri) Andre, P.E.	Pipeline Design/Permitting	25	3

15. FIRM NAME AND LOCATION (City and State)

CAPTEC Engineering, Inc. (Stuart, Florida)

16. EDUCATION (Degree and Specialization)	17. CURRENT PROFESSIONAL REGISTRATION (State and Discipline)
B.S. Environmental Engineering, University of Florida, 1994	Professional Engineer in the State of Florida (License No. 54695)

18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)

Mrs. Andrea has over 25 years of experience and expertise in stormwater analysis and modeling, land development design, permitting, utility design and modeling. Varied public and private sector projects encompassing multiple counties across Florida including outfall studies; stormwater retrofit projects; water quality studies; basin studies; conceptual stormwater analyses including pre-development modeling; multi-phase land development design and permitting; FEMA permitting; master utility plans; lift station design; Due Diligence studies; DRI submittals; RFP preparation; submittals and presentations. Member of FL Engineering Society (FES) Treasure Coast; 2003 Young Engineer of the Year; 2019 AutoCAD Civil 3-D Certification; FES Stormwater Management Design Course; FL Institute of Consulting Engineers; National Society of Professional Engineer

19. RELEVANT PROJECTS

A.

(1) TITLE AND LOCATION (City and State)

Town of Sewall's Point North Sewall's Point Septic to Sewer (Stuart, FL)

(2) YEAR COMPLETED	
PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
Mar. 2019–Jan. 2021	2020 – Jan. 2021

(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE

[X] Check if project performed with current firm

Mrs. Andre was the Sr. Project Manager/ Engineer for recently completing the design, permitting, and bidding services for the septic to sewer conversion of 8 areas of low-pressure Force Mains. CAPTEC has attained a State Appropriations grant to remove the maximum number of residential and commercial properties from septic tanks to Martin County Utilities Sanitary Sewer System in North Sewall's Point Area. The residential properties were removed from existing septic tanks and tied into the newly constructed parallel low-pressure force mains which conveys all hookups to the County's Force Main within North Sewall's Point Road. The number of connections is dependent on the cost feasibility and property owner's interest in participation. These facilities have been constructed within the public rights-of-way and utility easements. It is expected that 207 ERCs (Family lots) will be connected to the Martin County Utilities Sanitary Sewer System. Permit applications were submitted to FDOT and FDEP and coordinated with Martin County Utilities.
Consultant Cost $110,875.00

B.

(1) TITLE AND LOCATION (City and State)

Martin County Old Palm City Neighborhood (Palm City, FL)

(2) YEAR COMPLETED	
PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
Mar. 2018 to Sept 2020	2020

(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE

[X] Check if project performed with current firm

Mrs. Andre was the Sr. Project Manager/ Engineer for this recent project for providing design and modeling services to construct approximately 4,000 linear feet of piping of ditches that will be built along with the Old Palm City Vacuum Sanitary Sewer and roadway resurfacing improvements. The plans included hydraulic improvements for the existing backyard canals to carry stormwater flows away from currently inundated areas and redirect these flows to County owned land within the vicinity of the project and ultimately discharge treated stormwater to the South Fork of the St. Lucie River. Consultant Cost: $ 98,710.00

C.

(1) TITLE AND LOCATION (City and State)

Martin County New Fairgrounds Site Water & Sewer Study and ITS (Indiantown, FL)

(2) YEAR COMPLETED	
PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
Feb. 2020 to on-going	

(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE

[X] Check if project performed with current firm

Mrs. Andre is the Sr. Project Manager/ Engineer for currently preparing the Site Plan, permitting and on-site utilities & stormwater improvements for the Martin County Fairgrounds. In the past, CAPTEC prepared the Conceptual Design for an 8-inch water main and 8-inch force main extension to the Fairgrounds. The first phase will be permitted as Temporary Facilities Procedure which requires excavation/ fill permit and temporary parking. Consultant Cost: $134,500.00

D.

(1) TITLE AND LOCATION (City and State)

Seminole Park Water && Sewer Assessment (Hollywood, FL)

(2) YEAR COMPLETED	
PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
2015	2016

(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE

[ ] Check if project performed with current firm

Mrs. Andre was the Project Manager/ Engineer for preparing an evaluation of existing water and sewer systems for a 42.5-acre mobil home and recreational vehicle park that was purchased by the Seminole Tribe of FL. Project site and water system was originally developed in 1965. The sanitary sewer system was originally developed with septic tanks and drain fields but was replaced with gravity sewer and a lift station in 1999. An inventory & assessment was presented for all water mains, meters, valves, fire hydrants, sanitary sewer manholes and the lift station. 3-year maintenance cost projection was presented for the inventoried items.

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT
(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
Joseph W. Capra, P.E.	Pipeline Design/Permitting	40	25

15. FIRM NAME AND LOCATION (City and State)

CAPTEC Engineering, Inc. (Stuart, Florida)

16. EDUCATION (Degree and Specialization)	17. CURRENT PROFESSIONAL REGISTRATION (State and Discipline)
B.S. Civil Engineering, Rensselaer Polytechnic Institute, New York, 1979; Intro to Railroad Engineering, University of Wisconsin, 2009	Professional Engineer in the State of Florida (License No. 37638)

18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)

Mr. Capra has over 40 years of experience in civil engineering design/permitting/construction services for stormwater, drainage and utilities systems; water/sanitary sewer distribution/collection systems; water/sewer rehabilitation; downtown/CRA re-development; roadway/emergency restoration projects. Mr. Capra has assisted local municipalities with grant acquisition / public funding (including TAP, LAP, CDBG, SLRIT, and FDOT Enhancement Funds); scheduling; project management; and liaison efforts with government agencies.
Florida Engineering Society Treasure Coast - 2007 Engineer of the Year; FL Institute of Consulting Engineers; National Society of Professional Engineers; ASCE Member; Martin & St. Lucie County Economic Councils; Martin Co. MPO TAC Member; Former SFWMD WRAC Member & City of Stuart Charter Review Committee Member; FDOT Advanced MOT and LAP Certifications.

19. RELEVANT PROJECTS

A.

(1) TITLE AND LOCATION (City and State)

South Sewall's Point Road & High Point Subdivision Water Main Replacement (Stuart, FL)

(2) YEAR COMPLETED	
PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
Aug2019–Jan2021	2021

(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE

[X] Check if project performed with current firm

Mr. Capra is the Engineer of Record for the final design plans for the abandonment of 8" Asbestos cement pipe (ACP) water mains located on west side of South Sewall's Point Road and throughout the High Point Subdivision, in Sewall's Point. The final design identified valves, fire hydrants and services to be removed/ abandoned and locations added valves, fire hydrants, services/ meters, and pot holing to map the underground conditions at the crossings. The water mains were replaced with 8" PVC water main located in the right of way on South Sewall's Point Road and throughout the High Point Subdivision. The existing fire hydrant at Marguerita Road was disconnected from the existing water main and reconnected to the replacement water main. The existing 8" ACP water main was grouted and abandoned in-place utilizing Best Management Practices to minimize breakage during required removal/ disposal of pipe. CAPTEC coordinated with South Sewall's Point Road Phase 1 water main replacement design with the High Point Subdivision/ Island Road / Delano Lane Water Main Replacement design and roadway design for S. Sewall's Point Road – Phase 1. Consultant Cost $62,300.00

B.

(1) TITLE AND LOCATION (City and State)

Ocean Breeze Resort/ Indian River Drive for the Town of Ocean Breeze (Jensen Beach, FL)

(2) YEAR COMPLETED	
PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
2014 to 2018	2018

(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE

[X] Check if project performed with current firm

This project consisted of several phases; Initially CAPTEC completed feasibility study for the replacement of 142 septic tanks with sanitary sewers. The roadway, water/ sewer lines and stormwater improvements included design, permitting, utilities and construction engineering and inspection services for Ocean Breeze, Indian River Drive, the Community Center and Fitness Center. Phase 2 services included redesign of the entrances and the design of the sanitary sewer services. CAPTEC added traffic calming features to the roadway along with a stormwater treatment train retrofit due to its adjacent proximity to the Indian River. CAPTEC completed an education program with Martin County Environmental Science Center with videos and workbooks for all school age children in grades 1-6. CAPTEC completed a Water Quality Monitoring Program to confirm treatment for nutrients and secured four different grants to build this project. The roadway, traffic calming, sidewalks, curbing, seawalls and stormwater treatment train improvements are complete, and Mr. Capra is the Engineer of Record for this project. Consultant Cost: $ 125,000.00

C.

(1) TITLE AND LOCATION (City and State)

Martin County Septic Tank Elimination Study/ Septic to Sewer Conversion (Stuart, FL)

(2) YEAR COMPLETED	
PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
2011 & 2014	

(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE

[X] Check if project performed with current firm

Mr. Capra is the Engineer of Record for the evaluation and prioritization of collection and treatment of sanitary wastewater from areas within the current Martin County Utilities service area that are utilizing on-site septic treatment and disposal systems. The goal of the evaluation is to prioritize the areas based upon various physical and environmental factors and determine the feasibility of incorporating the proposed systems into the 10-year Capital Improvements Plan. The study included 24 communities along the St. Lucie Estuary and Indian River Lagoon areas throughout Martin County. Consultant Cost: $ 38,500.00

D.

(1) TITLE AND LOCATION (City and State)

City of Stuart I.Q. Main (Stuart, FL)

(2) YEAR COMPLETED	
PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
2009/11; 2016/17	2011 & 2017

(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE

[X] Check if project performed with current firm

Mr. Capra is the Engineer of Record for the design, permitting and CEI services for a new IQ main from the Wastewater Treatment Plant on Stypmann Blvd, down Georgia Ave to Martin Luther King Jr. Blvd., along the western edge of the Public Safety Complex, to south of the 10th Street Recreation Area Ball Fields batting cages. Phase II construction extended the lines from 10th Street to Dixie Highway to the Airport, across US1 to the Jail site and to the Pomeroy/Willoughby Blvd. intersection. Construction included over 32,000 L.F. of 12-30" pipe and over 6,700 L.F. of directional drilling and directional bores, when completed, under busy downtown streets, the FEC Rail-Road and several major thoroughfares such as U.S. 1. Consultant Cost: $ 125,000.00 (for each Phase).

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
Gary L.S. Jones, P.E.	Director of Construction Services	39	17

15. FIRM NAME AND LOCATION (City and State)

CAPTEC Engineering, Inc. (Stuart, Florida)

16. EDUCATION (Degree and Specialization)	17. CURRENT PROFESSIONAL REGISTRATION (State and Discipline)
Bachelor of Science in Civil Engineering, James Madison University, Harrisonburg Virginia; Broward Community College, Weston, FL	Professional Engineer in the State of Florida (License No. 51985)

18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)

Mr. Jones manages all construction projects and has over 39 years of experience in providing construction engineering and inspection (CEI) and management services highway, roadway, bridge and parking facility projects as well as drainage, water, wastewater, utility construction and infrastructure improvements. Mr. Jones is a member of the Florida Engineering Society (FES) Treasure Coast; 2019 Engineer of the Year (FES); FDOT Advanced MOT and LAP Certified; CTQP Quality Control Manager; CTQP Asphalt Paving; Level 1 & 2; IMSA Traffic Signal Inspection Level 1; Work Zone Safety Certification; Stormwater Management Inspector.

19. RELEVANT PROJECTS

A.

(1) TITLE AND LOCATION (City and State)

Town of Sewall's Point Septic to Sewer Conversion (Stuart, FL)

(2) YEAR COMPLETED	
PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
Mar. 2019-Jan. 2021	2020 - Jan. 2021

(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE

[X] Check if project performed with current firm

Mr. Jones was the Construction Director/ Manager for recently providing construction inspection services for the 8 areas of low-pressure force main underground installation for this septic to sewer conversion project. These services include the preparation of "Approved for Construction "Plans", pre-construction meeting, services associated with utilities and drainage and certifications through FDEP, FDOT and Martin County Utilities. Consultant Cost: $100,875.00

B.

(1) TITLE AND LOCATION (City and State)

Indian River Veteran's Memorial Park – TMDL Contract (Fort Pierce, FL)

(2) YEAR COMPLETED	
PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
Nov. 2013-July 2016	Nov. 2015 – July 2016

(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE

[X] Check if project performed with current firm

Mr. Jones was the Construction Director/ Manager for providing construction inspection services for upgrading the Indian River Veterans Memorial Park to better accommodate handicapped guests and address flooding issues. Project included designing Park improvements so as to deter flooding and improve ADA accessibility and usability by incorporating lighting, irrigation, drainage, paver walkways, concrete pavement, asphalt, concrete curbs and walls and grand entrances. Provided a stormwater treatment and nutrient load reduction plan for water quality benefits to the Indian River Lagoon including lakes, bioswales, fountains and flocc logs. This project entailed remodeling the Community Center to include ADA restrooms accessibility. The initial phase included the replacement of a sanitary sewer line to service the County Center while the facility was in operation**.** CEI services were provided to monitor work being performed, approve payment applications, and prepare final certification upon project completion. Consultant Cost: $ 192,500.00

C.

(1) TITLE AND LOCATION (City and State)

Jensen Beach Gate Valve Water Transmission Improvements (Jensen Beach, FL)

(2) YEAR COMPLETED	
PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
Feb. 2016 - 2018	Aug. 2017-Mar. 2018

(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE

[X] Check if project performed with current firm

Mr. Jones Shaw was the Construction Director/ Manager for this project that entailed the replacement of water main, sewer and stormwater improvement within the old neighborhood. Provided CEI services for the removal and replacement of the existing butterfly valves, in the 16" water main, with gate valves and the addition of gate valves on Jensen Beach Blvd. A 6" loop connection was constructed from the existing 6' valve at Sable Wood Place to the 8" water main at Lake Avenue which included a fire hydrant and service connections at Jensen Beach Blvd. This project included FDOT permitting whereby night construction was required with lane closures. Consultant Cost: $97,400.00

D.

(1) TITLE AND LOCATION (City and State)

Eldorado Heights CDBG Improvements (Stuart, FL)

(2) YEAR COMPLETED	
PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
Aug. 2010-June 2012	Aug. 2011-June 2012

(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE

[X] Check if project performed with current firm

Mr. Jones was the Construction Director/ Manager for this project which entailed the replacement of sanitary sewer, water main and storm water improvement, within an old neighborhood, within the City of Stuart. This was a Grant funded project. Provided field inspections, assisted City with CDBG contract reporting activities, daily observations of the CONTRACTOR'S Maintenance of Traffic set up and provided comments on any needed modifications or adjustments, observed testing, shop drawing review / approval, conduct weekly / bi-monthly progress meetings, reviewed pay application, conducted final inspection, reviewed/ approved shop drawings, and provided final certification Consultant Cost: $ 103,000.00.

E.

(1) TITLE AND LOCATION (City and State)

South Beach Road Water Main Extension (Town of Jupiter Island, FL)

(2) YEAR COMPLETED	
PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
2010-2011	2011

(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE

[X] Check if project performed with current firm

Mr. Jones was the Construction Director/ Manager for providing CEI services to include shop drawing review, attendance at pre-construction meeting, part-time field inspections, review of monthly pay requests for the addition of directional boring pit locations for the ±8,000 LF 8" water main along South Beach Road. Most of the pipe was extended by directional drilling. Submitted permits for the water main through the FDEP. Provided final certification of completion of the project. Consultant Cost: $ 125,000.00.

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
Thomas (TJ) Shaw, E.I.	Field Inspection	7	6

15. FIRM NAME AND LOCATION (City and State)

CAPTEC Engineering, Inc. (Stuart, Florida)

16. EDUCATION (Degree and Specialization)	17. CURRENT PROFESSIONAL REGISTRATION (State and Discipline)
B.S. Industrial Engineering, University of Florida, 2012	Professional Florida Engineer Intern (License No. 1100020751)

18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)

Mr. Shaw has over 7 years of expertise in ICPR modeling, design and permitting of stormwater basin design and improvements, drainage systems, water and sewer, cost estimating, utility specification preparation and construction administration services. Mr. Shaw is proficient in the latest versions of AutoCAD's Civil 3D including the FDOT State Kit and FDOT Connect. Mr. Shaw also utilizes the FDOT Design Standards, FDOT Greenbook, FDOT Design Manual, FDOT Utility Manual and is FDOT Advanced Maintenance of Traffic (MOT) certified. Member of FL Engineering Society (FES) Treasure Coast; 2019 AutoCAD Civil 3-D Certification; ICPR/ Erosion Control; Stormwater Management Design Course.

19. RELEVANT PROJECTS

A.

(1) TITLE AND LOCATION (City and State)

Architectural Engineering & Hydrogeological Services for the Public Works Complex at the City of Stuart's Water Treatment Plant (Stuart, FL)

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
2018 – 2020	

(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE

[X] Check if project performed with current firm

Mr. Shaw is the Project Design Engineer for providing the initial conceptual site plan and preliminary costs for relocating the City's Public Works Complex to the Old City Landfill. This location was decided against, so CAPTEC prepared a new conceptual site plan for the development of a New Public Works Complex located at the southeast corner of SE 10th Street and SE Palm Beach Road in Stuart. This work included the conceptual site plan design, stormwater management plan, parking areas, driveways, utility coordination, water/ sewer extension and the future building schematic which are services for the site development. Consultant Cost $97,500.00

B.

(1) TITLE AND LOCATION (City and State)

Indian River Drive/ Ocean Breeze Resort for the Town of Ocean Breeze (Jensen Beach, FL)

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
2014 to 2018	2018

(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE

[X] Check if project performed with current firm

Mr. Shaw was the Project Design Engineer for completing the feasibility study and design for the replacement of approximately 142 septic tanks with sanitary sewers and improvements to services. Provided design, conceptual planning, permitting and construction administration for the installation of the gravity sewer main systems, construction of roadways, water and sewer lines and stormwater improvements. Phase II services included redesign for rerouting of the East Sanitary Sewer Services and a stormwater treatment train retrofit adjacent to the Indian River. Consultant Cost: $125,000.00

C.

(1) TITLE AND LOCATION (City and State)

Jensen Beach Gate Valves Water Transmission Improvements (Jensen Beach, FL)

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
2017	2018

(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE

[X] Check if project performed with current firm

Mr. Shaw was the Project Design Engineer for providing design, permitting and prepared construction plans for the removal and replacement of existing butterfly valves, in the 16-inch water main, with gate valves and the addition of gate valves on Jensen Beach Blvd., constructing a 6-inch loop connection from the existing 6-inch valve at Sandal Wood Place to the 8-inch water main on Lake Avenue, plus fire hydrants & service connections at Jensen Beach Blvd. Consultant Cost: $94,400.00

D.

(1) TITLE AND LOCATION (City and State)

5601 Kanner Highway Land Use Change/ Kanner Lakes (Stuart, FL)

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
2019 - 2020	On-going

(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE

[X] Check if project performed with current firm

Mr. Shaw was the Project Design Engineer for preparing design plans for the on-site paving, grading, drainage, stormwater management, potable water and sanitary sewer improvements required by Martin County Land Development Regulations (LDRs), FDEP and SFWMD regulatory criteria. The sanitary sewer services included an on-site gravity collection system with a lift station and force main tie-in to the existing Martin County Utilities (MCU) sanitary sewer system on Kanner Highway Consultant Cost: $377,750.00

E.

(1) TITLE AND LOCATION (City and State)

Martin County Warner Creek Water Quality Retrofit (Stuart, FL)

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
2016 - 2018	2019

(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE

[X] Check if project performed with current firm

Mr. Shaw was the Project Design Engineer for providing updating of hydrologic and hydraulic modeling and stormwater analysis to complete the next phase of work for the installation of a bridge crossing at Bayberry Drive. Services also included preliminary and final plan design, relocation of a 16-inch raw water main, typical section of the Warner Creek channel, grading and drainage structure details and control structure schematic plans. Consultant Cost: $129,600.00

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT
(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
Peter G. Andersen, P.E.	Senior Geotechnical Engineer	24	15+

15. FIRM NAME AND LOCATION (City and State)

Andersen Andre Consulting Engineers, Inc. (Port St. Lucie, Florida)

16. EDUCATION (Degree and Specialization)	17. CURRENT PROFESSIONAL REGISTRATION (State and Discipline)
Masters of Science in Geotechnical Engineering, University of Florida (1997); Bachelor of Science in Civil/Structural Engineering, Technical University of Denmark (1995)	Professional Engineer (Discipline of Civil Engineering) in the State of Florida (No. 57956)

18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)

Peter is experienced providing geotechnical engineering and materials testing for roadway and intersection improvements, utility installations, low- and high-rise structures (including deep-foundation alternatives), STAs, solid waste facilities and port/harbor facilities.

19. RELEVANT PROJECTS

A.

(1) TITLE AND LOCATION (City and State)
City of Port St. Lucie Rangeline Road Repump Station and 36" Water Main, Port St. Lucie, Florida

(2) YEAR COMPLETED: PROFESSIONAL SERVICES 2014; CONSTRUCTION (if applicable) 2015

(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE

[X] Check if project performed with current firm

Peter was AACE's Project Manager for the Geotechnical Engineering Evaluation of a proposed 4-mile route for a planned 36" water main along Rangeline Road in western Port St. Lucie. The project also entailed the construction of a directional bore beneath the C-23 Canal and a "booster" pump station at the C-23. Upon completion of the design phase, AACE was contracted to perform Construction Materials Testing for the pipeline as well as the pump station. AACE's budget was approx.. $30,000.

B.

(1) TITLE AND LOCATION (City and State)
Community Boulevard (Port St. Lucie, FL)

(2) YEAR COMPLETED: PROFESSIONAL SERVICES 2009; CONSTRUCTION (if applicable) 2010

(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE

[X] Check if project performed with current firm

Peter served as Senior Geotechnical Engineer for this roadway soil survey consisting of more than 50 soil borings, mast-arm signal pole recommendations, lake explorations relative to soil suitability. Construction materials testing consisting of over 2,000 density tests, 50+ LBRs, paving and subgrade inspections and demucking observations. AACE's budget was approximately $150,000.

C.

(1) TITLE AND LOCATION (City and State)
Village Parkway, Phases I & II (Port St. Lucie, FL)

(2) YEAR COMPLETED: PROFESSIONAL SERVICES 2007; CONSTRUCTION (if applicable) 2011

(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE

[X] Check if project performed with current firm

Peter served as Senior Geotechnical Engineer for this roadway soil survey consisting of more than 200 soil borings, recommendations relative to roadway construction through 2,000 l.f. of water-filled reservoir, mast-arm signal pole recommendations, surcharging compressible clays, lake explorations relative to soil suitability. Construction materials testing consisting of over 5,000 density tests, 200 + sets of concrete cylinders for compressive strength, 75+ LBRs and as many as four (4) field technicians providing quality control services. AACE's budget was approximately $400,000.

D.

(1) TITLE AND LOCATION (City and State)
Rosser Boulevard (Port St. Lucie, FL)

(2) YEAR COMPLETED: PROFESSIONAL SERVICES 2007; CONSTRUCTION (if applicable) 2008

(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE

[X] Check if project performed with current firm

Peter served as Senior Geotechnical Engineer for this roadway soil survey consisting of soil borings and roadway cores, mast-arm signal pole recommendations, lake explorations relative to soil suitability. Construction materials testing consisting of full-time density testing, LBRs, paving and subgrade inspections and compressive strength of concrete testing. AACE's budget was approximately $45,000.

E.

(1) TITLE AND LOCATION (City and State)
Tradition Medical Center 9-Story Hospital (Tradition, Port St. Lucie, FL)

(2) YEAR COMPLETED: PROFESSIONAL SERVICES 2011; CONSTRUCTION (if applicable) 2016

(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE

[X] Check if project performed with current firm

AACE was retained by Martin Health System to prepare a subsurface soil exploration and Geotechnical Engineering Evaluation of the proposed Tradition Medical Center (TMC) facility in 2011. Peter Andersen, P.E. coordinated the performance of numerous SPT borings to evaluate the suitability of the site's soils to support the then-proposed 9-story hospital structure, 4-story parking garage and numerous ancillary site features. Due to the presence of very loose silty soils and the associated risk of excessive settlements, a recommendation of Vibro Replacement Technique (VRT, or "stone columns") was made. AACE was then selected by the Owner to perform construction materials testing for Phase I of the project, including earthwork observations, density testing, fill placement monitoring, concrete testing, etc. Subsequently, in 2014, AACE was retained by the Owner to provide supplemental Geotechnical Engineering services for Phase II of the project including two wing additions, increased parking and significant utility and drainage improvements. AACE Geotechnical Engineering and Materials Testing budget was approximately $400,000.

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT
(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
David P. Andre, P.E.	Senior Geotechnical Engineer	28	15+

15. FIRM NAME AND LOCATION (City and State)

Andersen Andre Consulting Engineers, Inc. (Port St. Lucie, Florida)

16. EDUCATION (Degree and Specialization)	17. CURRENT PROFESSIONAL REGISTRATION (State and Discipline)
Bachelor of Science in Environmental Engineering, University of Florida (1993);Post Graduate Coursework in Geotechnical Engineering, University of Central Florida (1997-1998)	Professional Engineer (Discipline of Civil Engineering) in the State of Florida (No. 53969)

18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)

David is experienced providing geotechnical engineering and materials testing services for roadway and utility construction, infrastructure improvements, and site preparation as well as general environmental consulting relative to subsurface contamination.

19. RELEVANT PROJECTS

A.

(1) TITLE AND LOCATION (City and State)

Continuing Service Contract, City of Port St. Lucie, (Port St. Lucie, FL)

(2) YEAR COMPLETED	
PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
2007-2011 2016-Ongoing	N/A

(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE

[X] Check if project performed with current firm

David was the Contract Manager when AACE maintained a continuing service contract with the City of Port St. Lucie for geotechnical engineering and construction materials testing until 2011 (when the City discontinued all professional service contracts), and then again when the service contracts were re-instituted in 2016. Services that AACE routinely provides for the CPSL include the performance of soil borings (SPT and auger borings), test pits, groundwater studies, roadway coring, embankment suitability studies, and all manner of materials testing during construction (density and concrete testing). Projects have included City-wide culvert and headwall replacements, roadway explorations and testing, utility installations (including more than 50 miles of water main), STA construction, municipal building construction, etc. Project budgets have ranged from $500 to $500,000.

B.

(1) TITLE AND LOCATION (City and State)

PSLUSD City-Wide Water Main Replacement (Port St. Lucie, FL)

(2) YEAR COMPLETED	
PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
2011	2013

(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE

[X] Check if project performed with current firm

David was AACE's Project manager when AACE was requested to provide Geotechnical Consulting and Construction Materials Testing services relative to the expedited replacement of more than 50 miles of water main (ranging from 4-inch diameter to 12-inch diameter mains) throughout the central and eastern portions of Port St. Lucie. Thousands of density tests were conducted on pipe trench backfill. Due to potential impacts to residents and businesses, numerous operations were performed between the hours of 10pm and 6am, requiring a full-time presence by an AACE Senior Field Technician. AACE's budget was approximately $185,000.

C.

(1) TITLE AND LOCATION (City and State)

PSLUSD McCarty Ranch Water Quality Restoration Project - Areas 1, 2 & 3 (Port St. Lucie, FL)

(2) YEAR COMPLETED	
PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
2018	Ongoing

(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE

[X] Check if project performed with current firm

David served as Project Manager for construction materials testing during construction of Areas 1, 2 and 3 of the McCarty Ranch water impoundment project and will soon serve in the same role during construction of Area 4. Services which AACE performs include density testing of compacted earthen berms, ditch/canal demucking observations and backfill testing, laboratory gradation testing of sand diaphragm materials, and compressive strength of concrete testing. AACE's budget is approximately $55,000 for each area (for a total budget of approximately $165,000 for the three completed areas).

D.

(1) TITLE AND LOCATION (City and State)

Becker Road - Segments 1 and 2 (Port St. Lucie, FL)

(2) YEAR COMPLETED	
PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
2007	2010

(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE

[X] Check if project performed with current firm

David served as Project Manager for this roadway soil survey consisting of soil borings to further characterize reported "unsuitable plastic soils", mast-arm signal pole recommendations, significant lake explorations relative to soil suitability. Construction materials testing consisting of full-time density testing, LBRs, paving and subgrade inspections and compressive strength of concrete testing. AACE's budget was approximately $300,000.

E.

(1) TITLE AND LOCATION (City and State)

Village Parkway, Phases I & II (Port St. Lucie, FL)

(2) YEAR COMPLETED	
PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
2007	2011

(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE

[X] Check if project performed with current firm

David served as Project Manager for this roadway soil survey consisting of more than 200 soil borings, recommendations relative to roadway construction through 2,000 feet of water-filled reservoir, mast-arm signal pole recommendations, surcharging compressible clays, lake explorations relative to soil suitability. Construction materials testing consisting of over 5,000 density tests, 200+ sets of concrete cylinders for compressive strength, 75+ LBRs and as many as four field technicians providing Quality Control service. AACE's budget was approximately $400,000.

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
Daniel Price	Operations Manager - SUE	15	4

15. FIRM NAME AND LOCATION *(City and State)*

Blood Hound LLC - Apopka, FL

16. EDUCATION *(Degree and Specialization)*	17. CURRENT PROFESSIONAL REGISTRATION *(State and Discipline)*

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

NULCA, Common Ground Alliance, Gold Shovel Association, NUCA, CCS

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
N. Commonwealth WM Improvement, Port Orange, FL	2021	

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☑ Check if project performed with current firm

SUE project for improvement of City of Port Orange Water system. Locate the horizontal and vertical locations of existing water system infrastructure and that of surrounding utilties that may conflict with the installation of new piping. Specific Role: Project and Operational Management. Cost: $90,300

b.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
James A. Haley Veterans Hospital, Tampa, FL	2021	

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☑ Check if project performed with current firm

Locate the horizontal locations of all utilites within a specific 20 acre area of the property for the design of new buildings to be constructed on site. Provide GIS mapping of detected utilities within the same area. Specific Role: Project and Operational Management. Cost: $51,400

c.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
Poinciana Pkwy - Poinciana, FL	2020	

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☑ Check if project performed with current firm

Locate the horizontal and vertical locations of all public and private utility infrastructure for the design of new on/off ramps between Poinciana Pkwy and Cypress Pkwy to prevent utility conflicts and damages. Specific Role: Project and Operational Management Cost: $60,000

d.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
City of St. Cloud unlocatables - St. Cloud, FL	2020	

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☑ Check if project performed with current firm

Locate and map the locations of "unlocatable" Water, Sanitary Gravity and Force Mains, Storm Sewers and Reclaimed Water Mains throught the city to assist with the city's response to FL one-call tickets. Specific Role: Project and Operational Management. Cost: $64,000

e.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
Town of Oakland Water System Improvment, Oakland FL	2007-2010	

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☐ Check if project performed with current firm

Locate the horizontal locations of all Town of Oakland water main line infrastructure to include all valves and meters. Provide vertical location, size, and material information in select locations. Specific Role: Lead Technician, Project Coordinator. Cost $100,000+

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
Elizabeth A. Lindsay	Professional Land Surveyor, Project Manager	a. TOTAL 40	b. WITH CURRENT FIRM 23

15. FIRM NAME AND LOCATION *(City and State)*
Betsy Lindsay, Inc. Stuart, Florida

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
A.A., Civil Engineering, Miami Dade Community College, Miami, Florida, 1983 Certified 40 Hour Hazmat/Health & Safety Training	Professional Land Surveyor, State of Florida – License # 4724

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)* Ms. Lindsay has 38 years of experience in land surveying related responsibilities. During that time, her responsibilities have included computations and coordination for survey related projects such as land subdividing, platting, submerged land lease exhibits, environmental field surveys, bathymetric, road right-of-way and construction surveys, boundary surveys, client liaison, and the supervision of various projects.

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*	YEAR COMPLETED	
Coastal Waste & Recycling of Martin County Hobe Sound, Florida	PROFESSIONAL SERVICES 2020	CONSTRUCTION (If Applicable)
(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)*	[x] Check if project performed with current firm	

Principal in Charge - Ms. Lindsay was the PM for this project, both office and field crews. Preform a boundary survey in accordance with the standards of practice. Topo the wetland areas and dry retention area. Locate the limits of wetlands as flagged by others. Prepare a boundary and topographic survey showing all data collected in the field.

b.

(1) TITLE AND LOCATION *(City and State)*	YEAR COMPLETED	
Hop Cat Restaurant Port St. Lucie Florida	PROFESSIONAL SERVICES 2018	CONSTRUCTION (If Applicable) 2018
(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)*	[x] Check if project performed with current firm	

Principal in Charge - Ms. Lindsay is the PM for the construction project located in the City of Port St Lucie. She coordinates with the client and directed the survey crews. Stake the four corners of the building square out with offsets and elevation. Perform a formboard survey for a 7,500 SF building. Stake and grade the columns of the patio. Stake our entrance to the restaurant. Performed and prepared an As-built Survey and was delivered to the client.

c.

(1) TITLE AND LOCATION *(City and State)*	YEAR COMPLETED	
Import Drive Port St. Lucie, Florida	PROFESSIONAL SERVICES 2020	CONSTRUCTION (If Applicable)
(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)*	[x] Check if project performed with current firm	

Principal in Charge - Ms. Lindsay was the Surveyor in-charge to coordinate this project, both office and field crews. Survey design to support a concrete sidewalk approximately 11,000 L.F, 2.08 miles, along SW Import Drive from 200' south of Oakwood Road to Savage Boulevard, located in the City of Port St. Lucie, Florida

d.

(1) TITLE AND LOCATION *(City and State)*	YEAR COMPLETED	
Cashmere Blvd Intersection Port St. Lucie, Florida	PROFESSIONAL SERVICES 2019	CONSTRUCTION (If Applicable)
(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)*	[x] Check if project performed with current firm	

Principal in Charge - Survey support for the Intersection Improvements at Cashmere Blvd & St. Lucie West located in Port St. Lucie. Establish site control, locate R/W lines. Prepare a base map and PNC sheets. Acquire topo in all directions of the intersection. Locate all existing above ground improvements with elevations. Collect details of all drainage structures. Prepare a specific purpose survey illustrating the field survey data.

e.

(1) TITLE AND LOCATION *(City and State)*	YEAR COMPLETED	
Newberry Fields Fort Pierce, Florida	PROFESSIONAL SERVICES 2021	CONSTRUCTION (If Applicable)
(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)*	[x] Check if project performed with current firm	

Principal in Charge - Betsy coordinates the scope of work with the client and then directed the survey crew to complete the survey. This survey project is for a boundary and topographic survey to support the future home of a Publix Shopping Center. These 3 parcels of land are approximately 54.95 acres and located in Fort Pierce off Jenkins Road. Prepare survey and deliver to the client.

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
Ernesto J. Garcia	Project Surveyor – P.L.S.	a. TOTAL 39	b. WITH CURRENT FIRM 2 year

15. FIRM NAME AND LOCATION (City and State)
Betsy Lindsay, Inc. Stuart, Florida

16. EDUCATION (DEGREE AND SPECIALIZATION)	17. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE)
Bachelors in Professional Studies / Business B.P.S., Barry University, Miami Shores, FL 1990	LS 3878

18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)
AutoCAD 2018
Associates in Land Surveying A.S., Palm Beach Community College Lake Worth, FL. 1976
Associates in Architecture A.A., Palm Beach Community College Lake Worth, FL. 1975

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION (City and State)	YEAR COMPLETED	
Indrio Road Fort Pierce, Florida	PROFESSIONAL SERVICES 2019	CONSTRUCTION (If Applicable)

(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC — Check if project performed with current firm

Mr. Garcia supported the crews on the 835 acres boundary survey. He supported the crews to prepare a boundary and topographic survey. Establish horizontal control tied to state plane coordinates and established vertical control referenced to NAVD 1988. Acquire topographic surveys to support engineering design of Indrio Road. Prepare a topographic survey overlaid onto the boundary survey by others in AutoCAD format.

b.

(1) TITLE AND LOCATION (City and State)	YEAR COMPLETED	
Alcantarra Boulevard Port St. Lucie, Florida	PROFESSIONAL SERVICES 2020	CONSTRUCTION (If Applicable)

(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC — Check if project performed with current firm

Ernie was the PM on this design topographic survey of the south side of Alcantarra Blvd from Savona Blvd to Port St. Lucie Boulevard to support sidewalk approximately 4,100 LF. We established horizontal and vertical control. Located the southerly R/W of Alcantarra Blvd. Perform a topo survey of the south side of the R/W from the centerline of the road. to 5' beyond R/W. Prepare a survey drawing illustrating the topographic collected in the field.

c.

(1) TITLE AND LOCATION (City and State)	YEAR COMPLETED	
Sandia Drive Port St. Lucie, Florida	PROFESSIONAL SERVICES 2019	CONSTRUCTION (If Applicable)

(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC — Check if project performed with current firm

Mr. Garcia was the PM on this design topographic survey of the west side of the Sandia Dr from Thornhill Dr north to the existing sidewalk north of Lakehurst Dr approximately 6,900 LF and located in the City of Port St. Lucie. We establish horizontal and vertical control on site. Located the westerly right of way of Sandia Drive. An AutoCAD survey was delivered to the client.

d.

(1) TITLE AND LOCATION (City and State)	YEAR COMPLETED	
Riverside Park Naranja Port St. Lucie, Florida	PROFESSIONAL SERVICES 2021	CONSTRUCTION (If Applicable)

(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC — Check if project performed with current firm

Ernie was the Project Surveyor in-charge with meeting the client needs to perform the survey. He supported the crews in the field to complete the task. Topographic survey to support design of River Park low pressure force main and force main rerouting located St. Lucie County, Florida.

e.

(1) TITLE AND LOCATION (City and State)	YEAR COMPLETED	
Paar Drive Port St. Lucie, Florida	PROFESSIONAL SERVICES 2021	CONSTRUCTION (If Applicable)

(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC — Check if project performed with current firm

Construction staking to support the design of sidewalk improvements on Paar Drive from Daemon Street to Savona Boulevard located in St. Lucie County. We established horizontal and vertical control. Compute coordinates and grades for driveway culverts. Perform and prepare an As-built survey of the site when the construction is completed.

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
Mechelle Kerns	Principal Investigator	20+	3

15. FIRM NAME AND LOCATION (*City and State*)

Southeastern Archaeological Research, Inc. (SEARCH), Miami, Florida

16. EDUCATION *(Degree and Specialization)*	17. CURRENT PROFESSIONAL REGISTRATION *(State and Discipline)*
PhD, 2004, Maritime Archaeology and History. University of St. Andrews. MA, 1999, Historical Studies and Public History. University of Maryland Baltimore County. BA, 1996, Ancient Studies. University of Maryland Baltimore County.	Register of Professional Archaeologists

18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)

Mechelle Kerns, PhD, RPA, has more than 20 years of experience as an archaeologist and historian specializing in cultural resource management. She joined SEARCH in 2018 as Principal Investigator with the Transportation group in the Hollywood, Florida office. Dr. Kerns has extensive experience with artifact identification, analysis, data collection, and preparation for curation, research design development, report writing, public outreach, and education programs, as well as supervisory experience managing staff for projects in both terrestrial and underwater archaeology, fieldwork, and laboratory processing of artifacts. Dr. Kerns has directed archaeological fieldwork for all phases of investigation on historic, maritime, and prehistoric sites in Florida, Washington DC, Maryland, West Virginia, Delaware, Virginia, Wisconsin, and Mississippi, and she worked on underwater sites in Maryland, Florida, and New York for both private and public sector clients. She has experience and training in Sections 106 and 110 of the National Historic Preservation Act (NHPA) and the National Environmental Policy Act (NEPA). Dr. Kerns is listed on the Register of Professional Archaeologists (RPA), and she exceeds the qualifications set forth by the Secretary of the Interior's *Standards and Guidelines for Archeology and Historic Preservation* (48 FR 44716).

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(County)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
Cultural Resource Assessment Survey Update of State Road 826/ Palmetto Expressway from I-75 to Golden Glades Interchange (Miami-Dade County, Florida)	2019	N/A

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Principal Investigator - Conducted for FDOT, District 6 in support of a Project Development and Environment (PD&E) Study update to construction plans. SEARCH documented 122 newly identified historic resources within the APE, 27 of which were recommended eligible for listing in the NRHP.

b.

(1) TITLE AND LOCATION *(County)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
Cultural Resource Assessment Survey for the Emory Canal Trail (Osceola County, Florida)	2018	N/A

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Principal Investigator - Phase I CRAS completed for FDOT, District 5 in support of the construction of a multi-use recreation trail along the Emory Canal. Archaeological shovel testing recovered no artifacts and architectural history survey documented 17 historic resources, none of which were recommended eligible for listing in the NRHP.

c.

(1) TITLE AND LOCATION *(County)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
Cultural Resource Assessment Survey of Lowson Boulevard/SW 10th Street from Military Trail to SE 6th Avenue/US 1 in the City of Delray Beach (Palm Beach County, Florida)	2018–2019	N/A

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Principal Investigator - Phase I CRAS completed for Kimley-Horn & Associates, Inc., the City of Delray Beach, Florida, and FDOT, District 4 in support of construction of bike lanes and sidewalk improvements along both sides of Lowson Boulevard/SW 10th Street. No archaeological resources were discovered in the pedestrian survey and systematic shovel testing and the architectural history survey identified and evaluated 59 historic resources, including structures, resource groups, and one railroad. Two resources were recommended eligible for listing in the NRHP.

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
Jason F. Newton	Architectural Historian	12	2

15. FIRM NAME AND LOCATION (*City and State*)

Southeastern Archaeological Research, Inc. (SEARCH), Miami, Florida

16. EDUCATION *(Degree and Specialization)*	17. CURRENT PROFESSIONAL REGISTRATION *(State and Discipline)*
MLIS, 2015, Library and Information Science. University of South Florida. MA, 2007, History. Texas State University. BA, 2004, History. Tarleton State University.	Phi Alpha Theta (National History Honor Society) Beta Phi Mu (International Library and Information Studies Honor Society)

18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)

Jason F. Newton, MA, MLIS, has more than eleven years of experience with architectural history and cultural resource management, and joined SEARCH in 2019 as an Architectural Historian. Mr. Newton has experience conducting historic resource evaluation, National Register of Historic Places (NRHP) nominations, Section 106 Review, and architectural survey throughout Florida, particularly south Florida. His qualifications meet those set forth by the Secretary of the Interior's *Standards and Guidelines for Architectural History and History (36 CFR Part 61).*

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(County)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
Historic Structure Report for 2001 Hollywood Boulevard (Hollywood, Broward County, Florida)	2020	N/A

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Architectural historian - Historic Structure Report completed for Estate General Contractors, LLC in order to properly document and evaluate the historic building. The project involved a thorough interior and exterior survey of the structure. SEARCH recommended the historic building ineligible for listing in the NRHP and non-contributing to the historic district.

b.

(1) TITLE AND LOCATION *(County)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
Cultural Resource Assessment Survey for the E. Columbus Drive from N. Nebraska Avenue to 14th Street Walk-Bike Local Agency Program Project (Hillsborough County, Florida)	2019-2020	N/A

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Architectural historian - Phase I CRAS completed for Ayres Associates, Inc. and the City of Tampa in support of the proposed Walk-Bike Local Agency Program (LAP) Project. Architectural history survey identified one NRHP-listed and NHL historic district. SEARCH recommended that the project would pose no adverse effect to the historic district.

c.

(1) TITLE AND LOCATION *(County)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
Cultural Resource Assessment Survey of Lowson Boulevard/SW 10th Street from Military Trail to SE 6th Avenue/US 1 in the City of Delray Beach (Palm Beach County, Florida)	2018–2019	N/A

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Architectural historian - Phase I CRAS completed for Kimley-Horn & Associates, Inc., the City of Delray Beach, Florida, and FDOT, District 4 in support of construction of bike lanes and sidewalk improvements along both sides of Lowson Boulevard/SW 10th Street. No archaeological resources were discovered in the pedestrian survey and systematic shovel testing and the architectural history survey identified and evaluated 59 historic resources, including structures, resource groups, and one railroad. Two resources were recommended eligible for listing in the NRHP.

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT

(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete on Section F for each project.)

20. EXAMPLE PROJECT KEY NUMBER: **1**

21. TITLE AND LOCATION (City and State)

Normandy Boulevard Reclaimed Water Main Extension
Volusia County, FL

22. YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
2018	2018

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
Volusia County	Michael Ulrich	386.943.7027

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

To accommodate growth along Normandy Boulevard and northeast of Howland Boulevard, the County needed to extend reclaimed water service to the area without impacting the traffic on major roadways. CHA provided design, permitting and construction administration services to install approximately 4,700 feet of 12-inch and 16-inch reclaimed water main along Normandy Boulevard, Graves Avenue and Howland Boulevard.
To extend the reclaimed system service area, the existing reclaimed water main, located on Normandy Boulevard, was extended north from the Catalina Boulevard connection and runs north for approximately 3,400 feet, crossing to the north side of East Graves Avenue and turning east, following the north ROW for approximately 1,300 feet and crossing Howland Boulevard for a final termination on the northwest corner of the Howland Boulevard and East Graves Avenue intersection. The 12-inch and 16-inch reclaimed water main was installed primarily utilizing HDD. The project was located within two municipal jurisdictions, Volusia County and the City of Deltona, and required ROW permitting with both agencies.

RELEVANCE TO SCOPE

- ✓ Force main design
- ✓ Preliminary and final design
- ✓ Permitting
- ✓ Construction administration

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION (City and State)	(3) ROLE
a.	CHA Consulting, Inc.	Winter Springs, FL	Prime
b.			

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT (Present as many projects as requested by the agency, or 10 projects, if not specified. Complete on Section F for each project.)	20. EXAMPLE PROJECT KEY NUMBER
	2

21. TITLE AND LOCATION (City and State)	22. YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
Storey Park/Innovation Place Utility Project Orange County, FL	2019	2019

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
Orange County Utilities	Mark Ikeler, PE	(407) 254-9705

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

Orange County has been progressively implementing a program to expand the capacity of their potable water and water reclamation infrastructure systems. As part of these efforts, the County has been constructing numerous transmission mains to increase system hydraulic capacity, provide operational flexibility, and provide system reliability for water, wastewater and reclaimed water customers in southeast Orange County; this provides the means to interconnect adjacent service areas.

This project was part of the County's system strategy, which included the ESA Potable Water and Reclaimed Water Storage and Repump Facility project, the Lee Vista Boulevard to Innovation Way transmission main project and the South Service Area (SSA)/ESA Potable Water and Reclaimed Water Main projects. Specifically, the Storey Park project included installing potable water and reclaimed water mains to address projected future potable and reclaimed water on consumptive and fire protection needs, and to provide a means of moving potable water from the Eastern Regional Water Supply Facility to the ESA Storage and Repump Facility.

This project also provides a way to move wastewater generated by future development and an existing development located south of Wewahootee Road to the County's Eastern WRF. To meet future demands, 9,537 feet of 36-inch water main, 4,027 feet of 30-inch water main (includes 200 feet within a railroad crossing), 5,460 feet of 20-inch water main, 955 feet of 30-inch force main, 10,929 feet of 20-inch force main, 9,749 feet of 20-inch reclaimed water main (includes 200 feet within a railroad crossing), and 2,032 feet of 12-inch reclaimed water main were installed via jack-and-bore. CHA's services include preliminary design, final design, permitting, and construction management for the potable water mains, reclaimed water mains and force mains that predominantly follow the alignments of the Innovation Way North and South roadways.

RELEVANCE TO SCOPE

- ✓ Large-diameter pipe
- ✓ Fast-tracked delivery
- ✓ Developer-driven infrastructure
- ✓ Jack-and-bore
- ✓ Preliminary and final design
- ✓ Permitting
- ✓ Construction administration

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION (City and State)	(3) ROLE
a.	CHA Consulting, Inc.	Winter Springs, FL	Prime
b.			

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT (Present as many projects as requested by the agency, or 10 projects, if not specified. Complete on Section F for each project.)	20. EXAMPLE PROJECT KEY NUMBER
	3

21. TITLE AND LOCATION (City and State)	22. YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
Eagle Circle Force Main Replacement Seminole County, FL	2015	2015

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
SSNOCWTA	Ed Gil De Rubio	(407) 628-3419

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

The Eagle Circle Force Main Replacement project was completed ahead of schedule and imparted no unintended damage to the existing site. The use of multiple pipe installation methods reduced the project's cost, created less potential for existing utility line damage, and provided several benefits. This force main replacement project included preliminary design, final design, permitting, construction inspection, and construction administration services for 8,275 feet of 12-inch HDPE force main consisting of 259 feet of jack-and-bore within a 24-inch steel casing, 5,671 feet of pipe bursting, 1,331 feet of HDD and 1,014 feet of open-cut to replace aging C-200 PVC and cast-iron pipe. The project also included right-of-way (ROW), maintenance-of-traffic (MOT), and FDEP permitting. The execution method used during the Eagle Circle project provided many benefits for stakeholders, including the SSNOCWTA and the general public. Advantages included cost savings, reduced construction schedule time, and minimized damage to third-party utilities and the environment.

RELEVANCE TO SCOPE

- ✓ Force main design
- ✓ Preliminary and final design
- ✓ Permitting
- ✓ Construction administration and inspection

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION (City and State)	(3) ROLE
a.	CHA Consulting, Inc.	Winter Springs, FL	Prime
b.			

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT
(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete on Section F for each project.)

20. EXAMPLE PROJECT KEY NUMBER: **4**

21. TITLE AND LOCATION (City and State)

Ernie Caldwell Reclaimed Water Main Improvements – Phase I
Polk County, FL

22. YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
2020	2020

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
Polk County Utilities	Tamara Richardson	(863) 298-4214

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

In 2016, Polk County completed an update to the Northeast Regional Utility Service Area (NERUSA) reclaimed water master plan that recommended several projects intended to increase the area served by reclaimed water and increase reliability by completing a reclaimed water main loop in the Ernie Caldwell Boulevard (ECB) and US-17/92 corridors.

The Phase I improvements consisted of approximately 10,300 feet of 20-inch diameter reclaimed water main within the ECB corridor extending from Posner Center to a future roadway connection. The project includes stub-outs to future development within the ECB corridor.

Additionally, the project included the future alignment of a 20-inch potable water main and 20-inch to 16-inch wastewater force main that parallel the new 20-inch reclaimed water main in the ECB corridor. The County obtained easements along the south side of the ECB ROW where it was feasible to accommodate the alignment of the proposed utilities in this corridor.

CHA provided the preliminary and final design, permitting, bidding, and construction phase services for approximately 10,300 feet of new 20-inch reclaimed water main within the ECB corridor extending from Posner Center to a future roadway connection with Ridgewood Lakes Phase 2. The project includes stub outs to future development within the ECB corridor. CHA is currently performing the design and construction services for Phase II of the improvements.

RELEVANCE TO SCOPE

- ✓ Installation along a steep slope
- ✓ Large-diameter pipe
- ✓ Preliminary design completed ahead of pipeline design
- ✓ Preliminary and final design
- ✓ Permitting
- ✓ Bid-phase services
- ✓ Construction administration

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION (City and State)	(3) ROLE
a.	CHA Consulting, Inc.	Winter Springs, FL	Prime
b.			

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT

(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete on Section F for each project.)

20. EXAMPLE PROJECT KEY NUMBER: **5**

21. TITLE AND LOCATION (City and State)

University Boulevard (Alafaya Trail) Force Main
Orange County, FL

22. YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
2016	2016

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
Orange County Utilities	Mark Ikeler, PE	(407) 254-9705

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

The Orange County Utilities Department provides water, wastewater and reclaimed water services to much of unincorporated Orange County, including areas to the north, west and south of the University of Central Florida. Newly planned, higher density housing supporting the University has spurred the need for this project. This project was required to increase the conveyance capacity of the wastewater collection system along University Boulevard to support the increasing demand.

CHA was contracted to design and prepare the construction documents, provide FDEP permitting, public relations, bidding assistance, and construction administration services for the wastewater collection system along University Boulevard with the construction of a 12-inch force main connecting an existing 12-inch force main, located at the intersection of Alafaya Trail and University Boulevard, to a manhole on the 24-inch gravity main located in the University Boulevard ROW, to the west of Quadrangle Boulevard.

CHA provided a preliminary design report to evaluate existing conditions along the proposed pipe installation route and presented information that had a bearing or impact on the planning, design, permitting, construction, or operation of the project.

RELEVANCE TO SCOPE

- ✓ Force main design
- ✓ Preliminary and final design
- ✓ Permitting
- ✓ Bid-phase services
- ✓ Construction administration

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION (City and State)	(3) ROLE
a.	CHA Consulting, Inc.	Winter Springs, FL	Prime
b.			

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT (Present as many projects as requested by the agency, or 10 projects, if not specified. Complete on Section F for each project.)	20. EXAMPLE PROJECT KEY NUMBER
	6

21. TITLE AND LOCATION (City and State)	22. YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
C-200 PVC Pipeline Replacement Seminole and Orange Counties, FL	2016	2016

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
SSNOCWTA	Ed Gil De Rubio	(407) 628-3419

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

SSNOCWTA is an organization tasked with funding, planning, operating and maintaining a wastewater transmission system serving five major local municipalities, including Seminole County, City of Casselberry, City of Winter Park, City of Maitland, and City of Winter Springs. SSNOCWTA's wastewater transmission system consists of pump stations, transmission force mains and monitoring stations to transmit collected wastewater to the City of Orlando's Iron Bridge Regional Water Reclamation Facility (WRF). To assist with the management and maintenance of the system, SSNOCWTA contracted CHA to develop a scope and fee estimate for developing a preliminary design report associated with replacing C-200 PVC force main piping throughout the SSNOCWTA transmission system.

Various segments of the SSNOCWTA transmission system are composed of PVC piping, more specifically C-200 PVC piping, which is characterized by a thin wall thickness. The majority of the transmission system was installed over 25-years ago and has been experiencing a steady increase in flows and pressures. The increased flows and pressure adds stress to an aging transmission system and place pipeline segments with thin wall thickness at a higher risk of failure. Force main failures within the SSNOCWTA system, like any other wastewater transmission system, result in expensive repairs and emergency situations to maintain a functioning wastewater transmission system.

The preliminary design report reviewed the existing C-200 piping locations and routes and provided recommendations on the installation procedures based on the piping's location, before commencing the design.

CHA also provided design, permitting and construction administration of this pipeline replacement project. The preliminary design report included evaluating replacement techniques for approximately 22,000 feet (ranging in size from 12-inch to 20-inch) located throughout residential and commercial areas. The design made use of HDD, pipe bursting and jack-and-bore techniques to minimize disturbance above ground.

RELEVANCE TO SCOPE

- ✓ Force main design
- ✓ Preliminary and final design
- ✓ Permitting
- ✓ Construction administration

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION (City and State)	(3) ROLE
a.	CHA Consulting, Inc.	Winter Springs, FL	Prime
b.			

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT
(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete on Section F for each project.)

20. EXAMPLE PROJECT KEY NUMBER: **7**

21. TITLE AND LOCATION (City and State)

Summerlake Park Boulevard 30-inch Force Main
Orange County, FL

22. YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
2016	2016

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
Orange County Utilities	Mark Ikeler, PE	(407) 254-9705

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

To support future growth of the Horizons West Special Planning Area in the Southwest Service Area (SWSA), Orange County needed to upsize their existing 8-inch and 12-inch force main along Summerlake Park Boulevard. CHA provided preliminary and final design, permitting, bidding and construction services for 5,300 feet of 30-inch force main within the Summerlake Park Boulevard ROW.

CHA provided the conceptual routing analysis, design, permitting, public notification, bidding, and construction services for installing a 30-inch force main along Summerlake Park Boulevard to provide capacity to accommodate the projected wastewater flows due to the growth within the SWSA. To meet these future demands, the County required installing approximately 5,300 feet of new 30-inch force main along Summerlake Park Boulevard to connect to the 16-inch discharge pipe at the existing Summerlake Pump Station (PS F3176). The 30-inch force main was installed using open-cut construction.

CHA provided services to construct the new force main while keeping the existing force main in service. The new pipeline was installed at a depth to allow for maintenance and did not disrupt traffic or require pavement restoration on the existing Summerlake Park Boulevard roadway.

RELEVANCE TO SCOPE

- ✓ Large-diameter force main design
- ✓ Preliminary and final design
- ✓ Permitting
- ✓ Bid-phase services
- ✓ Construction administration

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION (City and State)	(3) ROLE
a.	CHA Consulting, Inc.	Winter Springs, FL	Prime
b.			

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT

(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete on Section F for each project.)

20. EXAMPLE PROJECT KEY NUMBER: **8**

21. TITLE AND LOCATION (City and State)

Lift Station 20 (LS 20) Force Main Design
Melbourne, FL

22. YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
2019	2019

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
City of Melbourne	Jennifer Spagnoli, PE	(321) 608-5000

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

LS 20 at Avocado Avenue and Coleman Street is owned, operated and maintained by the City of Melbourne. LS 20 pumps wastewater to MH 1567 at Mathers Street and Bunche Street. The City wanted to reroute flow from LS 20 to another lift station in the system, Lift Station 23 (LS 23), while also replacing a 4-inch asbestos cement force main due to age and historical failures. CHA designed the new force main per the approved route. The approved route was pre-determined by CHA's routing analysis. Project tasks included subcontracting survey and geotechnical services to perform work; preparing 60%, 100%, and bid documents; providing permitting services; providing bidding assistance services; and subcontracting soft digs to locate potential conflicting utilities. CHA also provided administrative and technical services to complete the construction according to the contract documents. CHA, the engineer-of-record, signed and sealed the record drawings and certified project completion.

RELEVANCE TO SCOPE

- ✓ Force main design
- ✓ Preliminary and final design
- ✓ Permitting
- ✓ Bid-phase services
- ✓ Construction administration

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION (City and State)	(3) ROLE
a.	CHA Consulting, Inc.	Melbourne, FL	Prime
b.			

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT (Present as many projects as requested by the agency, or 10 projects, if not specified. Complete on Section F for each project.)	20. EXAMPLE PROJECT KEY NUMBER
	9

21. TITLE AND LOCATION (City and State)	22. YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
Seminola Force Main Replacement and Pump Station Relocation Casselberry, FL	2020	2020

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
City of Casselberry	Tara Lamoureux, PE	(407) 262-7725 ext. 1228

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

The City of Casselberry recently evaluated the capabilities of the Seminola master lift station basin to handle the projected growth in its wastewater collection master plan. The plan determined that the 10-inch force main that transferred flow from the Seminola master lift station to the City's WWTP needed to be up-sized to a 16-inch force main to handle projected future growth. Additionally, the existing 10-inch force main was constructed with substandard pipe materials, which were prioritized for replacement due to their potential for structural failure. It was also determined the Seminola master lift station needed to be up-sized to handle the expected increase in wastewater flow. The lift station renovations required the City to purchase a parcel adjacent to the lift station to expand the size of the station site from its original parcel. The proposed design included installing a new triplex lift station with a new wet well and converting the existing wet well to an influent manhole.

The tasks performed under this scope included the preliminary design, final design, permitting, bidding, and limited construction services to replace 4,800 feet of force main from the Seminola master lift station with a new 16-inch force main relocating the existing Seminola master lift station. CHA conducted preliminary routing analysis and hydraulic modeling to verify proper sizing and pressure conditions. The force main route includes a water body crossing and is located on a busy county road, traversing congested, high-traffic corridors. CHA provided MOT planning to minimize impacts to residents and traffic. Installation methods included traditional open-cut and jack-and-bore.

The master lift station relocation included demolishing the existing lift station, except for the existing wet well. The new lift station included a triplex lift station with submersible pumps, pump guide rails, single wet well, liner, access hatches, discharge piping, electrical and controls, an emergency generator, miscellaneous piping and appurtenances, a new access drive, fencing, and landscaping. Permitting included FDEP and Seminole County ROW applications.

RELEVANCE TO SCOPE

- ✓ Force main design
- ✓ Preliminary and final design
- ✓ Permitting
- ✓ Bid-phase services
- ✓ Construction administration

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION (City and State)	(3) ROLE
a.	CHA Consulting, Inc.	Winter Springs, FL	Prime
b.			

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT
(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete on Section F for each project.)

20. EXAMPLE PROJECT KEY NUMBER: **10**

21. TITLE AND LOCATION (City and State)	22. YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
SR-17 Utility Main Relocation and Replacement Haines City, FL	2016	2016

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
City of Haines City	Tracy Mercer	(863) 421-3695

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

The City of Haines City owns potable water, sanitary sewer force main, and sanitary gravity sewer utilities within the FDOT District 1 SR-17 ROW. With improvements proposed to the existing SR-17 roadway section and drainage system along the pipeline corridor, the City was required to relocate portions of all three existing utility piping systems to accommodate new FDOT facilities, including storm sewer, roadway, grading, lighting, and improvements to other local utilities (i.e., telephone, cable, power, and gas). This was a very fast-tracked project as the final roadway design was nearly completed when CHA received the notice to proceed for the utility adjustments.

The City took the opportunity to replace its existing 6- and 10-inch aging water main piping, adjust its sanitary sewer system and force mains, and install two 16-inch reclaimed water pipe casings for future use along the 8,000 feet of roadway alignment. For this project, CHA designed more than 8,000 feet of 8-, 10- and 16-inch water main, including removing more than 8,000 feet of asbestos cement pipe, 3,100 feet of sanitary sewer replacement, and 600 feet of force main replacement. CHA worked with the City and FDOT to minimize the necessary adjustments and required permitting while making long-needed improvements to their systems.

RELEVANCE TO SCOPE

- ✓ Force main design
- ✓ Preliminary and final design
- ✓ Permitting
- ✓ Construction administration

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION (City and State)	(3) ROLE
a.	CHA Consulting, Inc.	Winter Springs, FL	Prime
b.			

G. KEY PERSONNEL PARTICIPATION IN EXAMPLE PROJECTS											
26. NAMES OF KEY PERSONNEL (From Section E, Block 12)	27. ROLE IN THIS CONTRACT (From Section E, Block 13)	28. EXAMPLE PROJECTS LISTED IN SECTION F (Fill in "Example Projects Key" section below before completing table. Place "X" under project key number for participation in same or similar role.)									
		1	2	3	4	5	6	7	8	9	10
C. Robert Reiss, PhD, PE	Principal-in-Charge				X						
Stefano Ceriana, PE	Project Manager	X	X	X	X	X	X	X		X	X
J. Richard Voorhees, PE	Quality Manager									X	
Melanie Peckham, PE	Senior Project Engineer	X	X		X	X		X			X
Antoine Sands, CEng., PMP	Senior Project Engineer										
Eric Gassen, EI	Project Engineer		X		X	X	X	X		X	
Eric Knoppel, EI	Project Engineer				X						
Ed Talton, PE	Hydraulic Modeling									X	
Mark Worsham, PE	Pipeline Design								X		
Scott Hoxworth, PE	Pipeline Design	X	X		X						
Charles Warren	In-house RPR										

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT			
No.	TITLE OF EXAMPLE PROJECT (FROM SECTION F)	No.	TITLE OF EXAMPLE PROJECT (FROM SECTION F)
1	Volusia County, Normandy Boulevard Reclaimed Water Main Extension	6	SSNOCWTA, C-200 PVC Pipeline Replacement
2	Orange County Utilities, Storey Park/Innovation Place Utility Project	7	Orange County Utilities, Summerlake Park Boulevard 30-inch Force Main
3	SSNOCWTA, Eagle Circle Force Main Replacement	8	City of Melbourne, Lift Station 20 (LS 20) Force Main Design
4	Polk County Utilities, Ernie Caldwell Reclaimed Water Main Improvements – Phase I	9	City of Casselberry, Seminola Force Main Replacement and Pump Station Relocation
5	Orange County Utilities, University Boulevard (Alafaya Trail) Force Main	10	City of Haines City, SR-17 Utility Main Relocation and Replacement

H. ADDITIONAL INFORMATION

30. PROVIDE ANY ADDITIONAL INFORMATION REQUESTED BY THE AGENCY. ATTACH ADDITIONAL SHEETS AS NEEDED.

Contact

C. Robert Reiss, PhD, PE
927 New Haven Avenue, Suite 206, Melbourne, FL 32901
(407) 789-0403
creiss@chacompanies.com




About CHA

CHA Consulting, Inc. (CHA) is an innovative, full-service engineering consulting and construction management firm ***delivering sustainable, integrated solutions to the world's most challenging infrastructure projects***. With decades of experience, we bring inspired talent, forward-leaning technology, and essential partnerships to meet our clients' evolving needs. We are your trusted advisors and partners committed to ***responsibly improving the world we live in.***

CHA serves as your single point of contact from start to finish, utilizing technology advancements and adapting teams, schedules, budgets, and services to each unique challenge. Our client focus is driven by trust and collaboration. We study, design, manage, and build ***projects that enhance our communities and our world.***

At CHA, we are committed to the values of ***inclusion, diversity and equality, and the full participation of all people.*** These are core company values at the heart of who we are as an organization. CHA has and will continue to embrace and celebrate the diversity of voices our employees, clients, partners, and communities represent.

CHA's commitment to sustainability comes through in the work we do, in the communities we build, and as we work to create a better, more sustainable workplace. Our diversification across markets, geographies, and the services we provide has driven CHA's success.

CHA's robust health and safety program empowers our people to take ownership of safety through education and access to the best safety tools. Our ***"people first" approach*** instills a culture of health and safety that minimizes the risk of workplace incidents, injuries and exposure to hazards for our employees, partners and the public. Proactive engagement to health and safety permeates throughout all levels of our organization.

At CHA, engineering and client engagement go hand-in-hand. Providing both yields ***amazing value… and amazing results.***

CHA at a Glance

1,300+ Employees firm-wide

69 Years in business

40+ Office locations

ENR
ENGINEERING NEWS-RECORD
TOP FIRM
#53 OF TOP 500 DESIGN FIRMS
#38 OF TOP 100 PURE DESIGNERS
#9 OF TOP 20 MANUFACTURING

We provide full-service programming and design:

- Alternative delivery
- Architectural
- Asset management
- Aviation design and planning
- Civil engineering
- Construction engineering
- Electrical
- Energy solutions
- Environmental, health and safety
- Geospatial innovation
- Geotechnical
- Health and safety
- Land development
- Life safety and security
- Mechanical
- Program management
- Sports planning and architecture
- Structural
- Survey
- Sustainability
- Tank rehabilitation
- Technology solutions
- Transportation engineering and planning
- Water and wastewater
- Wireless communications

30. PROVIDE ANY ADDITIONAL INFORMATION REQUESTED BY THE AGENCY. ATTACH ADDITIONAL SHEETS AS NEEDED.

Comprehensive In-House Architectural and Engineering Services

Our large team of highly trained engineers is supported by hundreds of technical specialists who provide a vast array of services to our clients.

Architectural

Our architects and designers seek to create high-quality, collaborative designs that stress innovation grounded in careful listening to your functional needs and tailored to your culture and specific organizational needs. We have vast expertise and resources, but our commitment to you will be laser-focused, thoughtful and longstanding. Building design often involves diverse stakeholder input, and you can trust that we'll guide you through a design process that's right-sized for your project and community. The end result will be a design that is innovative, flexible, creative, and beautiful. You'll like our designers and love what they design for you.

Arc Flash Analysis

Arc flash is arguably the deadliest and least understood hazard faced daily by plant personnel. Research indicates that even the best safety plan, training regimen, and protective equipment may be no match for an arc flash's heat and blast effects. Leveraging robust knowledge of industry standards, CHA regularly performs arc flash analyses geared toward understanding and preventing arc flash and arc blast hazards. Our team performs thorough risk assessments, collecting all applicable data about power distribution and electrical systems, and determines levels of risk for each component. CHA's analysis will provide you with a list of possible mitigation options to decrease arc flash energy levels and protect your personnel.

Asset Management

CHA's asset management capabilities provide a powerful complement to our long history of delivering investigative and infrastructure expansion/renewal engineering services for wastewater systems. We offer our clients GIS solution development, long-range capital and system planning, integrity assessment, regulatory strategy, compliance, and data management services. Our GIS system empowers you with complete, easy-to-access information on your assets and a clear picture of the condition of your critical systems. With it, you can quickly develop comprehensive maintenance programs, optimize field programs, and respond to emergencies and outages. Our goal is to help you manage your capital assets effectively while minimizing the costs associated with owning and operating them.

Civil Engineering

The backbone of modern society is the built environment. To support the demands of the ever-changing present, communities need supporting infrastructure that can match the rapid pace of daily life. Today, the roads we drive on, the infrastructure that provides services to our homes and businesses, and civic and recreational spaces must respond to unique and complex environmental and social settings. Communities need solutions that are both right for today's world and flexible enough to accommodate the future.

Our civil engineers rely on unique designs, innovative materials, and modern construction technologies to create structures, foundations, and other sensitive projects for the public and the bottom line. Our expertise spans the entire project cycle from feasibility evaluations through full-service design and construction. With thousands of design projects under our belt and offices throughout the United States, we have the relationships and experience to smooth the path to project completion.

30. PROVIDE ANY ADDITIONAL INFORMATION REQUESTED BY THE AGENCY. ATTACH ADDITIONAL SHEETS AS NEEDED.

Construction Administration/Construction Inspection

CHA provides a full complement of construction administration and inspection services to monitor, record, and deliver projects. Our team includes seasoned certified construction professionals cross-trained in design, project and risk management, and health and safety compliance.

Electrical/Instrumentation

Electronics power the 21st century. Without well-designed, efficient lighting, security, telecommunication systems, even the brightest, most alluring facilities are left in the dark. Our electrical professionals specialize in the design of lighting, power distribution, emergency power, fire alarm, security, lightning protection, instrumentation and control, and telecommunication systems. Our staff consists of recognized industry professionals with careers spanning decades. They have a reputation for verifying regulatory compliance while crafting durable, energy-efficient systems.

Energy

We help industrial, commercial and institutional clients develop energy management and sustainability programs that reduce energy costs through intelligent efficiency improvements. We also provide technical support services to state and utility programs in outreach, technical review, technical advisory, and program implementation services. Our team has conducted more than 1,000 energy efficiency audits and assessments, identifying more than $90M in energy and operational savings. We've designed and installed combined heat and power (CHP) systems that reduce utility expenses by up to 50%, reduce carbon footprints by 45% and make utility outages less of a problem. CHA has also identified grants, incentives, and private financing for a range of projects.

Financial Analyses and Evaluations

CHA recognizes the value accurately and thoroughly evaluates the feasibility, cost, and benefit of wastewater utility ventures to enhance the quality of service. Our team considers various financing strategies and operational analyses to implement desired projects with minimal impacts and costs successfully. Our approach encompasses assessing potential financial plans, service changes, rate structures, and rates to fund and develop long-term improvements to your conveyance and treatment systems.

Funding

Our funding specialist, Lee Hale, PE, has been working in Florida for decades, knows the stakeholders, and provided support to secure grants and loans for the communities to improve and maintain their water and sewer systems. Our local presence and working relationship with the regulators and funding agencies will be unparalleled to serve your needs.

Geotechnical

The composition of the ground at your site is a critical factor in the design and construction of your project. CHA brings decades of experience in exploring a wide range of soil, bedrock, and groundwater conditions and evaluating the impacts of these conditions on infrastructure projects. Our design solutions range from simplistic to complex and innovative, as our approach to geotechnical engineering always considers final project cost, schedule, and performance.

Mechanical Engineering

CHA creates state-of-the-art mechanical systems that prioritize energy efficiency without sacrificing strength or ramping up costs. Our team consists of industry leaders who have valuable hands-on experience as plant managers and engineers in industrial settings. We offer complete MEP engineering and design/construction services for companies throughout the manufacturing sector and various public, private, and institutional clients. Our professionals will perform a thorough analysis of your systems and utilize proven methods to optimize performance.

30. PROVIDE ANY ADDITIONAL INFORMATION REQUESTED BY THE AGENCY. ATTACH ADDITIONAL SHEETS AS NEEDED.

Permitting

Our scientists will serve as your resident expert in permitting compliance. Our team will manage the design, regulatory approval, specialized environmental studies, environmental management systems, collection system capacity, management, operation & maintenance (CMOM) programs, environmental compliance planning and reporting programs. Our strong relationships and experience with regulatory agencies mean that we can help smooth the path to full permitting compliance.

Public Outreach

CHA is experienced with community outreach and public stakeholder involvement. We engage the public early and often in the preliminary design phase and maintain awareness and involvement as the project moves forward. We also work with our clients to identify key stakeholders and public officials and keep them apprised of major issues and decisions as the project develops. We have found that actively working with the identified key stakeholders from preliminary design to construction completion minimizes misunderstandings and keeps projects on track through experience.

Our key staff members have also demonstrated strong speaking capabilities and have been called on to publicly present technical and non-technical material to a variety of audiences. We have regularly conducted extensive public outreach programs to inform and solicit input from residents, businesses and other community stakeholders. Programs regularly involved planning and executing public meetings to address and incorporate public and committee questions. Other outreach tactics include developing project websites, text messages, e-newsletter alert services, individual and group stakeholder meetings, public inquiry responses via phone and email, and project branded collateral.

Structural Engineering

Our team uses steel, concrete, masonry, timber, aluminum, fiber-reinforced plastic, and other materials to design the framework, or “structural skeleton,” for most projects we produce. With nearly 200 years of combined structural engineering experience, our engineers can solve clients’ needs, using creative solutions to design efficient structures that safely support the loads and resist the forces imparted on them. Governmental, industrial, manufacturing, institutional, historic, municipal, recreational, water/wastewater, aviation, and communication are only a fraction of the market sectors we have the experience and ability to serve.

Sustainability

Our team has led the way with innovative green designs. From our early work on America’s Most Scenic Highways to our recent award-winning Smart Growth projects, we’ve helped set the standard that others follow today. CHA is a registered member of the U.S. Green Building Council and employs a staff of LEED Accredited Professionals, including landscape architects, engineers, and professional planners. From the initial planning stages to the achievement of certification, our experienced LEED Accredited Professionals will be there to help set goals, guide progress, document construction practices, and interface with the U.S. Green Building Council.

Surveying and Rights-of-Way (ROW) Services

CHA’s comprehensive approach to survey work is the hallmark of a successful project. We strive for a rapid response. Our size and diversity in skill sets enable us to mobilize quickly to meet demanding schedule requirements. We are a survey group focused on using advanced measurement technology to improve our process and results. Our robust quality assurance/quality control processes result in accurate and precise work.

30. PROVIDE ANY ADDITIONAL INFORMATION REQUESTED BY THE AGENCY. ATTACH ADDITIONAL SHEETS AS NEEDED.

Transportation

Our transportation specialists plan, design, and help maintain and construct these most valued assets—including roads, bridges, railways, waterways, and multi-modal facilities—for public and private transportation owners, agencies and authorities. Whether an initiative involves a cost-effective rehabilitation or an innovatively funded major capital improvement, we provide the experience, creativity, and expertise to improve mobility and safety.

Water and Wastewater

Water

Our experienced and highly skilled professionals can assess, plan, design, and construct required infrastructure while meeting increasingly stringent regulations. Our resume covers water supply, distribution, storage, treatability evaluations, treatment plant design, operation and maintenance plants, and sludge dewatering projects. Making sure that water is clean and safe is one of the most important services each community can provide.

Wastewater Collection

CHA is one of the leading collection system and wet weather flow engineering firms. We have assisted many clients in constructing new gravity sewer lines, pump stations, and force mains. Our experience includes modeling, sanitary sewer evaluation surveys (SSES), I&I studies, sewer system rehabilitation, and equalization basin design.

Water and Sewer Modeling

We are industry leaders in using hydraulic models to develop planning strategies, CIPs, operational scenarios, and design parameters for water and sewer improvement projects. We have multiple water and sewer modelers who used Innovyze's water modeling software and the know-how to use the software efficiently.

Water and Wastewater Technology

Our knowledge of proven smart-water ideas and expertise in state-of-the-art pipe rehabilitation and replacement technologies, funding mechanisms, and digitalization trends in the industry gives us the tools to provide the best planning and modeling services to optimize your investments.

30. PROVIDE ANY ADDITIONAL INFORMATION REQUESTED BY THE AGENCY. ATTACH ADDITIONAL SHEETS AS NEEDED.

Commitment to Designing Sustainable Solutions

CHA is committed to integrating environmentally responsible design, engineering, and construction into all our projects. These practices are generally known as "green building" or "green construction" and imply a design philosophy that stresses solving the present needs without diminishing the resources necessary to solve the needs of the future.

CHA's philosophy of resource-conscious design and engineering is on the green movement's cutting-edge and built-in ways that use renewable resources and green technologies.

CHA's sustainability initiative stands on four strategic pillars:

Sustainable Services & Clients

We provide sustainable practices in the services we offer to help our clients plan, design, and build projects that endure.

Sustainable Workforce

We inspire our employees by creating an environment that connects us to our company and communities and challenges our employees to grow personally and professionally.

Sustainable Communities

We meaningfully engage with stakeholders and support the communities in which we work and live.

Sustainable Operations

We measure our environmental footprint and implement programs to reduce resource use, waste, and carbon emissions.

Corporate Commitment to Environmental Stewardship

At CHA, our responsibility to responsibly improve the world we live in goes far beyond delivering a quality engineering design on schedule and under budget. Our responsibility extends to the communities where each of our employees lives and works.

It is our obligation to responsibly improve the world through our designs and our actions, so our environment is preserved for future generations.

30. PROVIDE ANY ADDITIONAL INFORMATION REQUESTED BY THE AGENCY. ATTACH ADDITIONAL SHEETS AS NEEDED.

CHA acquired Reiss Engineering in 2021.

City of Melbourne

900 E. Strawbridge Avenue • Melbourne, Fl 32901 • (321) 727-2900 • Fax (321) 953-6207

RE: Letter of Recommendation

To Whom It May Concern:

On behalf of the City of Melbourne, I am pleased to write this letter of recommendation for Reiss Engineering, Inc. (REI) regarding the quality engineering support that they have provided on the following projects:

- Wastewater Collection/Transmission Master Plan
- Water System Master Plan Update
- RO Concentrate Discharge Permitting

The REI team consists of experienced and dedicated employees that are capable of performing quality technical tasks for a variety of services. They are always responsive and take great pride in their work while maintaining an appropriate schedule. They are capable of completing complex tasks while providing leadership and direction. Overall, the team is great to work with and meshes well with City Staff in a true 'team" effort. The City continues to utilize their services on both a continuing consulting and project-specific basis. If you have any questions, please do not hesitate to contact me at (321) 608-5000.

Sincerely,

Harold C. Nantz

Harold C. Nantz, P.E.
Assistant Public Works & Utilities Director

An Equal Opportunity Employer
• Internet: www.melbourneflorida.org • E-Mail: cityhall@melbourneflorida.org

30. PROVIDE ANY ADDITIONAL INFORMATION REQUESTED BY THE AGENCY. ATTACH ADDITIONAL SHEETS AS NEEDED.

*CHA acquired Reiss Engineering in 2021.

City of Vero Beach
17 17th Street
Post Office Box 1389
Vero Beach, Florida 32961
(772) 978-5220 Fax: (772) 978-5215

Office of the Director
Water and Sewer Dept.

RE: Reiss Engineering, Inc. Letter of Recommendation

To Whom It May Concern:

On the behalf of the City of Vero Beach, I write this letter with the highest recommendation for Mark Burgess and the staff at Reiss Engineering, Inc. (Reiss) who has performed a variety of engineering, design, and construction management related services to support our utilities. They have continually met schedule and budget commitments while delivering quality results and work products. The City originally contracted with Reiss under a Master Services Agreement in 2013 and, again, in 2018 to provide professional services that have included:

- Water, wastewater, and reclaimed water distribution system modeling;
- Water quality modeling;
- Water, wastewater, and reclaimed water system master planning;
- Water use permitting;
- Pipeline preliminary and final design, permitting, and construction services;
- Pump station/lift station design, permitting, and construction services;
- Water, wastewater, and reclaimed water treatment piloting, preliminary, final design, permitting, bidding, and construction phase services;
- Wastewater nutrient management study;
- State Revolving Fund (SRF) Loan and grant Assistance.

Under these contracts, they have performed various tasks including 4-Log virus evaluation at our drinking water softening treatment plant, reverse osmosis (RO) membrane replacement and expansion for our RO water treatment plant, and sulfuric acid bulk tank replacement projects. Reiss recently completed a Nutrient Management Study to evaluate alternatives to retrofit our existing 4.5 MGD wastewater treatment facility to improve treatment and reduce effluent nutrients. They are currently assisting the City with SRF Loan and grant funding considerations for our proposed relocation and expansion of our wastewater treatment facility to a new site with a 5.0 MGD capacity and a process that will be capable of meeting Advanced Wastewater Treatment (AWT) limits.

Reiss continues to maintain open and effective communication with our staff. Overall, their team is built of experienced, trusted, and dedicated employees. I would not hesitate to employ them on future projects.

Sincerely,

Robert J. Bolton, P.E., Director
Water and Sewer Department

RJB/sb

30. PROVIDE ANY ADDITIONAL INFORMATION REQUESTED BY THE AGENCY. ATTACH ADDITIONAL SHEETS AS NEEDED.

*CHA acquired Reiss Engineering in 2021.

Volusia County
FLORIDA

Public Work Department
Water Resources and Utilities

October 17, 2018

Melanie D. Peckham, P.E.
Reiss Engineering, Inc.
1016 Spring Villas Pt.
Orlando, Florida 32708

Re: Letter of Recommendation

Dear Ms. Peckham:

On behalf of Volusia County, I am pleased to write this letter of recommendation for Reiss Engineering, Inc. (Reiss) regarding the quality engineering design and construction management services and support provided on the Normandy Boulevard Reclaimed Water Main Extension Project.

The Reiss staff provided responsive and quality technical services on the project, as well as personal service to meet the underlying goals and needs of the County. Reiss effectively coordinated the project with other entities including the City of Deltona. Reiss was always responsive and took great pride in their work while maintaining budget and schedule which was critical for this St. Johns River Water Management District cost-share funded project. Overall, Reiss was a pleasure to work with and provided a true "team" effort with our staff. We look forward to working with Reiss on future projects.

Sincerely,

Scott Mays, P.E.
Utility Engineer

C: Michael Ulrich, Director, Water Resources and Utilities

123 W. Indiana Ave, DeLand, FL 32720 • Tel: (386) 943-7027 • Fax: (386)740-5139 • www.volusia.org

30. PROVIDE ANY ADDITIONAL INFORMATION REQUESTED BY THE AGENCY. ATTACH ADDITIONAL SHEETS AS NEEDED.

*CHA acquired Reiss Engineering in 2021.

UTILITIES ENGINEERING DIVISION
9150 Curry Ford Road • Orlando, Florida 32825-3318
407-254-9900 • Fax 407-254-9999
http: //www.orangecountyfl.net

March 14, 2019

Melanie D. Peckham, P.E.
Reiss Engineering, Inc.
1016 Spring Villas Pt.
Winter Springs, Florida 32708

Re: Letter of Recommendation

Dear Ms. Peckham:

I am pleased to write this letter of recommendation for Reiss Engineering, Inc. (Reiss), regarding the quality engineering design services and support that they have provided on the Vistana Water Supply Facility Improvements project.

The Reiss staff provided responsive and quality technical services on the project, as well as personal service to meet the underlying goals and needs of the County. Reiss effectively coordinated critical decisions with the County's Water Operations staff throughout design and construction. Reiss is always responsive and takes great pride in their work while maintaining budget and schedule. Overall, the Reiss team is a pleasure to work with and provides a true "team" effort with our staff. We look forward to working with Reiss on future projects.

Sincerely,

Charles S. Parker, P.E.
Chief Engineer

30. PROVIDE ANY ADDITIONAL INFORMATION REQUESTED BY THE AGENCY. ATTACH ADDITIONAL SHEETS AS NEEDED.

*CHA acquired Reiss Engineering in 2021.

SOUTH SEMINOLE & NORTH ORANGE COUNTY WASTEWATER TRANSMISSION AUTHORITY

410 Lake Howell Road Maitland, FL 32751-5907

August 13, 2014

RE: Letter of Recommendation

To Whom It May Concern:

It gives me great pleasure to write this "Letter of Recommendation" for Reiss Engineering Inc. (REI). Since 2009, REI has been a trusted partner for the South Seminole & North Orange County Wastewater Transmission Authority (SSNOCWTA). REI has continually met schedule and budget commitments, while delivering the quality results they have promised. Some of the various wastewater engineering services REI has provided to SSNOCWTA include:

- Design, engineering, and construction inspection services for force main repairs and replacements. Pump station repairs, maintenance, and rehabilitations;
- Engineering services as requested regarding general system conditions, operation, and maintenance, including semi-annual pump station functional tests;
- Engineering services as required for pump station upgrades and improvements;
- Hydraulic modeling;
- Master Plan updates and the design and implementation of a CIP program;
- Preparation of grants and permits to construct and maintain sections of the transmission system;
- Engineering services as required during emergencies, including, but not limited to, loss of power, pump station overflows, outside contractor impacts, and infrastructure issues.

REI is a quality service provider that has a team \ common sense approach to resolving issues. We have enjoyed working with their personnel and continue to be impressed with their enthusiasm and expertise. We look forward to continually work with REI on future projects.

Sincerely,

Ed Gil de Rubio
Executive Director
(407) 628-0153

H. ADDITIONAL INFORMATION

30. PROVIDE ANY ADDITIONAL INFORMATION REQUESTED BY THE AGENCY. ATTACH ADDITIONAL SHEETS AS NEEDED.

CHA acquired Reiss Engineering in 2021.

Tamara Richardson, P.E.
Director

1011 Jim Keene Blvd., SR 540
Winter Haven, Florida 33880

POLK COUNTY
UTILITIES DIVISION

Board of County Commissioners

PHONE: 863-298-4100
FAX: 863-298-4292
www.polk-county.net

RE: Reiss Engineering, Inc. Reference

To Whom it May Concern:

Polk County Utilities began our relationship with Reiss Engineering, Inc. (Reiss) in February 2008 with a successful regional water supply plan that led to the initiation of the Polk Regional Water Cooperative. This introductory task was well executed and the County encouraged Reiss to submit for a continuing services contract which was subsequently awarded in 2010. Since then Reiss has provided professional engineering services in connection with the design, permitting, planning, and construction phase services for water, wastewater, and reclaim water facilities located within Polk County.

In addition to task orders assigned under these contracts, Reiss has completed large capital improvement projects for the County, including the following:

Northwest Regional Utility Service Area Wastewater Treatment Facility Improvements and Expansion which included preliminary engineering, permitting, final design, bidding, and construction administration services for the improvements to the hydraulic issues within the existing facility;

NWRUSA WWTF Aquifer Storage and Recovery Facility which included one of the deepest ASR wells in the United States. Reiss helped to obtain the well construction permit from SWFWMD, prepared the FDEP Class V Injection Well Construction Permit Application and completed the final design, bidding, and construction services; and

Lift Station No. 106 Rehabilitation which included design and construction services to improve the wastewater collection system and to meet future system demand.

Other capital projects Reiss is currently performing or close to completing include:

- Central Regional Utility Service Area (CRUSA) Water Production Facility (New 4.0 MGD Advanced Water Treatment Plant)
- Ernie Caldwell Reclaimed Water Main Improvements
- Northwest Regional WWTF Headworks Improvements

Reiss has executed these projects to the satisfaction of Polk County Utilites. The Reiss project management and design team maintained excellent communication throughtout the project life cycle so that crucial decicions and County preferences were incorported to our expectations. Projects were delivered successfully on time and on budget.

Reiss' staff has a well proven success record with the County and continues to deliver quality service on projects as well professional interaction with Reiss' staff - from junior engineers to project and client managers, field engineers, and operational staff.

I am pleased to offer my recommendation for Reiss Engineering, Inc. Their staff have been highly professional, skilled and responsive to PCU on a range of assignments over a period of more than ten years.

Sincerely,
Polk County Utilities
Tamara Richards

Tamara Richardson, PE
Director

H. ADDITIONAL INFORMATION

30. PROVIDE ANY ADDITIONAL INFORMATION REQUESTED BY THE AGENCY. ATTACH ADDITIONAL SHEETS AS NEEDED.

*CHA acquired Reiss Engineering in 2021.

HAINES CITY

WWW.HAINESCITY.COM

RE: Letter of Recommendation for Reiss Engineering, Inc. Consulting and Engineering Services

To Whom It May Concern:

Reiss Engineering, Inc. (Reiss) has been providing a variety of engineering, design, permitting, and construction management related services to support our growing utilities since 2012. On the behalf of the City of Haines City, I write this letter with the highest recommendation for Reiss. They have continually met schedule and budget commitments while delivering quality results and deliverables. Some of the projects Reiss has performed with the City include:

- SR 17 Utility Main Relocation and Replacement
- Reclaimed Water Ground Storage Tank, Pump Station and RIBS Study
- Preliminary Design of Reclaimed Water Improvements
- Lake Eva Recharge (RIB) Feasibility Study
- Engineering Services for Reclaimed Water Disposal to Sprayfields
- Final Design of Reclaimed Water Ground Storage Tank and Pump Station Upgrades
- Miscellaneous Engineering Support for Water, Wastewater and Reclaimed Water Tasks
- SRF Funding Assistance for Force Main and Lift Station Improvements
- Nola Properties Pipeline and Sprayfields
- WWTP Biological Treatment Process Improvements
- Revised Stormwater Pond Design
- Lake Eva Monitoring Well Instrumentation Support
- Disc Filter Retrofit at WWTP
- WWTP Expansion SRF Facilities Plan
- Grant Application Support Services

Reiss has assisted the City with critical professional engineering services on several important projects, as previously mentioned, including supporting the City with respect to the identification and implementation of additional beneficial reclaimed water disposal options to help eliminate a key constraint with respect to wastewater treatment capacity. They also assisted with obtaining 75% cost share funding from the Southwest Florida Water Management District for City's Reclaimed Water Ground Storage Tank and Pump Station. Services currently being provided include planning, design, permitting, construction administration, and support/administration of SWFWMD Cooperative Funding Initiative (CFI) grants and FDEP State Revolving Fund (SRF) loans.

Reiss has experienced and dedicated employees and they continue to maintain open and effective communication with our staff. They were recently reselected under the City of Haines City's continuing contract for professional engineering services in the Water, Wastewater, Reclaimed Water and Stormwater Utility Services category. I would not hesitate to hire them for future projects.

Sincerely,

Tracy Mercer
Director of Special Projects

300 North 5th Street ❖ Haines City, Florida 33844 ❖ Phone (863) 421-3300 ❖ Fax (863) 421-3780

H. ADDITIONAL INFORMATION

30. PROVIDE ANY ADDITIONAL INFORMATION REQUESTED BY THE AGENCY. ATTACH ADDITIONAL SHEETS AS NEEDED.

Improving Climate Change Resilience of Municipal Wastewater Infrastructure

Southeast Florida is considered one of the most vulnerable areas to climate change and sea level rise in the United States due to its low elevation, high groundwater table, and the proximity of dense population centers and economic developments to the coastline.

Da Yu, PE
Reiss Engineering Inc.

Also
Mark Burgess, PE, Reiss Engineering Inc.
Edward Talton, PE, Reiss Engineering Inc.
Nancy Gassman, PhD, Sustainability Division, City of Fort Lauderdale
Steve Hillberg, PE, Project Manager, City of Fort Lauderdale Public Works

Climate change impacts include sea-level rise, intensified tropical weather events, sunny day flooding, and extreme precipitation events. Along with the deterioration caused by aging, climate change impacts c
For wastewater utilities, storms
of sewage flow that overwhelms
facilities, potentially causing fac
overflows (SSOs).

Southeast Florida is conside
areas to climate change and sea
to its low elevation, high ground
of dense population centers and
coastline. Located on the coastli
Fort Lauderdale (City) shares th
to meteorological events such as
prolonged heavy rains, and storr
tropical storms.

Most municipalities have es
resources to address the deterior
caused by aging. However, anal
the practical strategies to protec
potential adverse impacts of clir
municipal wastewater industry.

This article presents an anal
infrastructure and the identificat
climate change issues, including
intrusion, and storm surge. Pract
recommended to improve the re
infrastructure and to help protec

10 | JOURNAL Florida Engineering Society | JULY 2020

FWRJ

Know the Unknown: Evaluating Water Main Inspection Technologies

Weston Haggen and Emily Staubus Williamson

Weston Haggen, P.E., is a project manager and Emily Staubus Williamson, EI, is a project engineer with Reiss Engineering, a CHA Company, in Tampa.

Nationwide, utility owners are challenged to manage their infrastructure as it begins to approach the end of its useful life—or even exceeds its expected useful life. How can utilities maximize the life and use of their existing infrastructure, while planning replacements before a costly failure? Managing a multitude of underground infrastructure is no easy task.

Inspection of underground pipelines can save owners capital funds by prioritizing specific pipelines, based on actual condition and regardless of age, to maximize the useful life of infrastructure that's still in good condition. Inspections and condition assessments can introduce additional challenges, such as not violating any Florida Department of Environmental Protection rules and maintaining minimal interruption to customers.

Water mains are commonly constructed using various materials, most commonly polyvinyl chloride (PVC), high-density polyethylene (HDPE), cast iron, ductile iron, asbestos cement, concrete, and steel. Each pipe material experiences different methods of failure due to the properties specific to each material of construction. For example, ferrous materials are susceptible to failure due to external and internal corrosion, whereas plastic materials are more susceptible to failure due to deflection or improper installation.

Determining locations to test water mains is not as straightforward as wastewater force mains. Since the force main failures generally occur at the high points due to hydrogen sulfide (H_2S) gas wall deterioration, it allows for inspections to be conducted in isolated areas to track material thickness. Conversely, cast iron water main failures, for example, are more likely to be associated with circular and longitudinal cracking, which often cannot be identified early and tracked over time, like force main inspections. Cracking often occurs suddenly; early leaks may be an identifier of cracking, but may not always provide enough warning before failure.

While a large variety of inspection technologies are available for pipe inspection, not all are right for every type of pipe used for potable water distribution. By conducting a detailed evaluation of available assessment technologies, a utility may identify the technologies best suited to assess water mains. The selected technology may then be used to collect uniform testing data to allow the utility to quantitatively determine when a water main will require replacement.

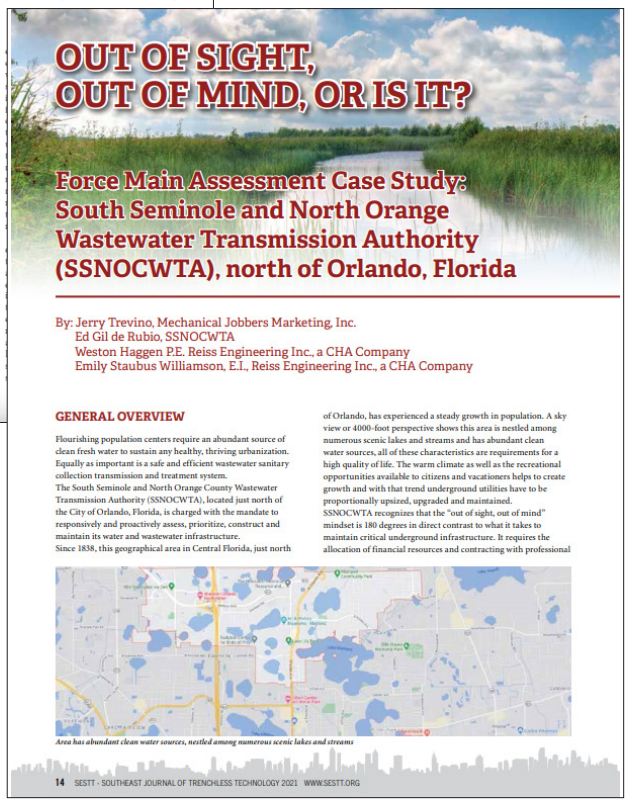
This article presents an evaluation of the issues described and details the completion of the initial evaluations for the most popular and available inspection technologies.

The initial evaluation identified available technologies that were feasible for water main inspections. From the evaluation, the most-practical inspection technologies were made for each pipe material type. For each technology, a methodology was developed to assist in the selection of the testing location based on testing requirements (i.e., pipe diameter, insertion requirements, etc.) and results identified (i.e., leaks, wall thickness, defect, etc.), as well as providing preliminary inspection costs for each technology.

Pipe R&R Program

Figure 1. Pipe Repair and Replacement Program

48 May 2021 • Florida Water Resources Journal



OUT OF SIGHT, OUT OF MIND, OR IS IT?

Force Main Assessment Case Study: South Seminole and North Orange Wastewater Transmission Authority (SSNOCWTA), north of Orlando, Florida

By: Jerry Trevino, Mechanical Jobbers Marketing, Inc.
Ed Gil de Rubio, SSNOCWTA
Weston Haggen P.E. Reiss Engineering Inc., a CHA Company
Emily Staubus Williamson, E.I., Reiss Engineering Inc., a CHA Company

GENERAL OVERVIEW

Flourishing population centers require an abundant source of clean fresh water to sustain any healthy, thriving urbanization. Equally as important is a safe and efficient wastewater sanitary collection transmission and treatment system.
The South Seminole and North Orange County Wastewater Transmission Authority (SSNOCWTA), located just north of the City of Orlando, Florida, is charged with the mandate to responsively and proactively assess, prioritize, construct and maintain its water and wastewater infrastructure.
Since 1838, this geographical area in Central Florida, just north of Orlando, has experienced a steady growth in population. A sky view or 4000-foot perspective shows this area is nestled among numerous scenic lakes and streams and has abundant clean water sources, all of these characteristics are requirements for a high quality of life. The warm climate as well as the recreational opportunities available to citizens and vacationers helps to create growth and with that trend underground utilities have to be proportionally upsized, upgraded and maintained.
SSNOCWTA recognizes that the "out of sight, out of mind" mindset is 180 degrees in direct contrast to what it takes to maintain critical underground infrastructure. It requires the allocation of financial resources and contracting with professional

Area has abundant clean water sources, nestled among numerous scenic lakes and streams

14 SESTT - SOUTHEAST JOURNAL OF TRENCHLESS TECHNOLOGY 2021 WWW.SESTT.ORG

I. AUTHORIZED REPRESENTATIVE

The foregoing is a statement of facts.

31. SIGNATURE

32. DATE

October 18, 2021

33. NAME AND TITLE

C. Robert Reiss, PhD, PE, Florida Water Project Team Leader

ARCHITECT – ENGINEER QUALIFICATIONS

1. SOLICITATION NUMBER *(If any)*: eRFP #20210081

PART II – GENERAL QUALIFICATIONS

(If a firm has branch offices, complete for each specific branch office seeking work.)

2a. FIRM (OR BRANCH OFFICE) NAME: **CHA Consulting Inc.**	3. YEAR ESTABLISHED: 2011
	4. DUNS NUMBER: 118240694
2b. STREET: 927 New Haven Avenue, Suite 206	**5. OWNERSHIP**
	a. TYPE: Corporation
2c. CITY: Melbourne / 2d. STATE: FL / 2e. ZIP CODE: 32901	b. SMALL BUSINESS STATUS: No
6a. POINT OF CONTACT NAME AND TITLE: C. Robert Reiss, PhD, PE, Florida Water Project Team Leader	7. NAME OF FIRM *(If block 2a is a branch office)*
6b. TELEPHONE NUMBER: (321) 345-1760 / 6c. E-MAIL ADDRESS: creiss@chacompanies.com	

8a. FORMER FIRM NAME(S) *(If any)*		8b. YR. ESTABLISHED	8c. DUNS NUMBER
Clarkeson Engineering Co., Inc., 1952	John Clarkeson, Consulting Eng., 1955		
Clarkeson, Clough, Yokel, 1966	Clarkeson & Clough Associates, 1967		
Clough Associates, 1971	Clough, Harbour & Associates, 1981		
Clough Harbour & Associates LLP, 1990	CHA, Inc., 2008		

9. EMPLOYEES BY DISCIPLINE

a. Function Code	b. Discipline	c. No. of Employees (1) FIRM	(2) BRANCH
NA	Airport Engineers	43	
06	Architects	29	
12	Civil Engineers	93	1
15	Construction Inspector	45	1
21	Electrical Engineers	165	
23	Environmental Engineer	10	1
24	Environmental Scientist	12	
27	Foundation/Geotechnical	8	
30	Geologist	5	
34	Hydrologist	2	
35	Industrial Engineers	3	
38	Land Surveyor	38	
39	Landscape Architects	11	
42	Mechanical Engineers	58	1
47	Planners: Urban/Regional	17	
52	Sanitary Engineers	39	
55	Soils Engineers	0	
57	Structural Engineers	75	
58	Technician/Analyst	56	
60	Transportation Engineers	151	
	Other Employees	456	
	Total	1316	4

10. PROFILE OF FIRM'S EXPERIENCE AND ANNUAL AVERAGE REVENUE FOR LAST 5 YEARS

a. Profile Code	b. Experience	c. Revenue Index Number *(see below)*
A05	Airports; Navaids; Airport Lighting; Aircraft	7
A06	Airports; Terminals; & Hangers; Freight	7
C15	Construction Management	10
D02	Dams (Earth; Rock); Dikes; Levees	3
E02	Educational Facilities; Classrooms	6
E07	Energy Conservation; New Energy Sources	3
E09	Environmental Impact Studies,	5
F03	Fire Protection	8
H04	Heating, Ventilating, Air Conditioning	4
H07	Highways; Streets; Airfield Paving; Parking	7
I06	Irrigation; Drainage	3
L03	Landscape Architecture	5
L06	Lighting (Exteriors; Street; Memorials;	3
P06	Planning (Site, Installation and Project)	6
P12	Power Generation, Transmission,	7
R06	Rehabilitation (Buildings; Structures;	6
S04	Sewage Collection, Treatment & Disposal	6
S05	Soils & Geologic Studies; Foundations	4
S07	Solid Wastes; Incineration; Landfill	4
S09	Structural Design; Special Structures	5
S10	Surveying; Platting; Mapping; Flood Plain	5
W03	Water Supply; Treatment and Distribution	6

11. ANNUAL AVERAGE PROFESSIONAL SERVICES REVENUES OF FIRM FOR LAST 3 YEARS

(Insert revenue index number shown at right)

a. Federal Work	6
b. Non-Federal Work	10
c. Total Work	10

PROFESSIONAL SERVICES REVENUE INDEX NUMBER

1. Less than $100,000
2. $100,000 to less than $250,000
3. $250,000 to less than $500,000
4. $500,000 to less than $1 million
5. $1 million to less than $2 million
6. $2 million to less than $5 million
7. $5 million to less than $10 million
8. $10 million to less than $25 million
9. $25 million to less than $50 million
10. $50 million or greater

12. AUTHORIZED REPRESENTATIVE

The foregoing is a statement of facts.

a. SIGNATURE

b. DATE: October 18, 2021

c. NAME AND TITLE

C. Robert Reiss, PhD, PE, Florida Water Project Team Leader

ARCHITECT – ENGINEER QUALIFICATIONS

1. SOLICITATION NUMBER **RFP #20210081**

PART II – GENERAL QUALIFICATIONS

2a. FIRM (OR BRANCH OFFICE) NAME			3. YEAR ESTABLISHED	4. DUNS NUMBER
CAPTEC Engineering, Inc.			1996	969867027
2b. STREET			5. OWNERSHIP	
301 NW Flagler Avenue			a. TYPE	
			Corporation	
2c. CITY	2d. STATE	2e. ZIP CODE	b. SMALL BUSINESS STATUS	
Stuart	FL	34994	Yes – Small Business Enterprise	
6a. POINT OF CONTACT NAME AND TITLE			7. NAME OF FIRM (if block 2a is a branch office)	
Joseph W. Capra, P.E., President				
6b. TELEPHONE NUMBER	6c. E-MAIL ADDRESS			
(772) 692-4344	jcapra@gocaptec.com			
8a. FORMER FIRM NAME(S) (if any)			8b. YR. ESTABLISHED	8c. DUNS NUMBER

9. EMPOLYEES BY DISCIPLINE

a. Function Code	b. Discipline	c. No. of Employees (1) Firm	c. No. of Employees (2) Branch
02	Administrative	4	
08	CADD Technician	5	
12	Civil Engineer	7	
15	Construction Inspector	3	
48	Project Manager	1	
	TOTAL	20	

10. PROFILE OF FIRM'S EXPERIENCE AND ANNUAL AVERAGE REVENUE FOR LAST 5 YEARS

a. Profile Code	b. Experience	c. Revenue Index Number (see below)
C10	Commercial, low rise	1
C15	Construction Management	1
C18	Cost Estimating	1
D04	Design-Build	1
H07	Highways	3
H11	Housing – Multi-Family	3
I01	Industrial	2
O01	Office Buildings	2
P04	Pipelines (Gas)	3
P06	Planning	1
S11	Sustainable Design	1
S13	Stormwater Facilities	3
U02	Urban Renewal	1
W02	Water Resources	2
W03	Water Supply	2

11. ANNUAL AVERAGE PROFESSIONAL SERVICES REVENUE OF FIRM FOR LAST 3 YEARS
(Insert revenue index number shown at right)

a. Federal Work	1
b. Non-Federal Work	6
c. Total Work	6

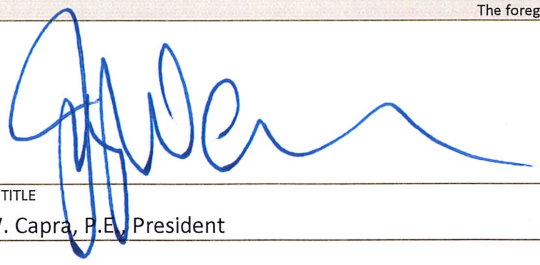
PROFESSIONAL SERVICES REVENUE INDEX NUMBER

1. Less than $100,0000
2. $100,000 to less than $250,000
3. $250,000 to less than $500,000
4. $500,000 to less than $1 million
5. $1 million to less than $2 million
6. $2 million to less than $5 million
7. $5 million to less than $10 million
8. $10 million to less than $25 million
9. $25 million to less than $50 million
10. $50 million or greater

12. AUTHORIZED REPRESENTATIVE

The foregoing is a statement of facts.

a. SIGNATURE



b. DATE: October 11, 2021

c. NAME AND TITLE: Joseph W. Capra, P.E., President

ARCHITECT – ENGINEER QUALIFICATIONS

1. SOLICITATION NUMBER **RFP #20210081**

PART II – GENERAL QUALIFICATIONS

2a. FIRM (OR BRANCH OFFICE) NAME			3. YEAR ESTABLISHED	4. DUNS NUMBER
Andersen Andre Consulting Engineers, Inc.			2005	36 104 27 52
2b. STREET			5. OWNERSHIP	
834 SW Swan Avenue			a. TYPE	
			Corporation	
2c. CITY	2d. STATE	2e. ZIP CODE	b. SMALL BUSINESS STATUS	
Port St. Lucie	FL	34983	No	
6a. POINT OF CONTACT NAME AND TITLE			7. NAME OF FIRM (if block 2a is a branch office)	
David P. Andre, P.E., President				
6b. TELEPHONE NUMBER	6c. E-MAIL ADDRESS			
(772) 807-9191	dandre@aaceinc.com			
8a. FORMER FIRM NAME(S) (if any)			8b. YR. ESTABLISHED	8c. DUNS NUMBER

9. EMPOLYEES BY DISCIPLINE

a. Function Code	b. Discipline	c. No. of Employees (1) Firm	c. No. of Employees (2) Branch
12	Civil Engineer	1	
23	Environmental Engineer	1	
27	Foundation/Geotechnical Engineer	1	
58	Technician/Analyst	6	
	TOTAL	**9**	

10. PROFILE OF FIRM'S EXPERIENCE AND ANNUAL AVERAGE REVENUE FOR LAST 5 YEARS

a. Profile Code	b. Experience	c. Revenue Index Number (see below)
B02	Bridges	1
C10	Commercial Buildings (low rise), Shopping Centers	2
E02	Educational Facilities, Classrooms	1
E09	Environmental Impact Studies, Assessments	2
H07	Highways, Streets	2
H11	Housing (Residential, Multi-family, Apartments)	1
I06	Irrigation/Drainage	1
L04	Libraries	1
M06	Mining and Mineralogy	1
O01	Office Buildings	2
R04	Recreational Facilities	1
R11	Rivers, Canals, Waterways	1
S05	Soils & Geologic Studies, Foundations	4
S13	Stormwater Handling Facilities	2
T02	Testing and Inspection Services	4
W01	Warehouses and Depots	1
W02	Water Resources	1
W03	Water Supply	1
H09	Hospitals, Medical Facilities	2

11. ANNUAL AVERAGE PROFESSIONAL SERVICES REVENUE OF FIRM FOR LAST 3 YEARS
(Insert revenue index number shown at right)

a. Federal Work	1
b. Non-Federal Work	5
c. Total Work	5

PROFESSIONAL SERVICES REVENUE INDEX NUMBER

1. Less than $100,0000
2. $100,000 to less than $250,000
3. $250,000 to less than $500,000
4. $500,000 to less than $1 million
5. $1 million to less than $2 million
6. $2 million to less than $5 million
7. $5 million to less than $10 million
8. $10 million to less than $25 million
9. $25 million to less than $50 million
10. $50 million or greater

12. AUTHORIZED REPRESENTATIVE
The foregoing is a statement of facts.

a. SIGNATURE	b. DATE
	October 4, 2021

c. NAME AND TITLE
David P. Andre, P.E., President/Principal

ARCHITECT – ENGINEER QUALIFICATIONS

1. SOLICITATION NUMBER *(If any)*: eRFP 20210081

PART II – GENERAL QUALIFICATIONS

(If a firm has branch offices, complete for each specific branch office seeking work.)

2a. FIRM (OR BRANCH OFFICE) NAME: Betsy Lindsay, Inc.		3. YEAR ESTABLISHED: 1998	4. DUNS NUMBER: 044171119
2b. STREET: 7997 SW Jack James Drive		5. OWNERSHIP	
		a. TYPE: Corporation	
2c. CITY: Stuart	2d. STATE: FL / 2e. ZIP CODE: 34997	b. SMALL BUSINESS STATUS: N.A.I.C.S. 541370	
6a. POINT OF CONTACT NAME AND TITLE: Elizabeth A. Lindsay, President		7. NAME OF FIRM (If block 2a is a branch office)	
6b. TELEPHONE NUMBER: 772-286-5753	6c. E-MAIL ADDRESS: bli@betsylindsay.com		
8a. FORMER FIRM NAME(S) *(If any)*: N/A		8b. YR. ESTABLISHED: N/A	8c. DUNS NUMBER: N/A

9. EMPLOYEES BY DISCIPLINE

a. Function Code	b. Discipline	c. No. of Employees (1) FIRM	(2) BRANCH
02	Administrative	2	
08	CADD Technician	4	
38	Land Surveyor	8	
48	Project Managers	2	
	Other Employees	0	0
	Total	16	0

10. PROFILE OF FIRM'S EXPERIENCE AND ANNUAL AVERAGE REVENUE FOR LAST 5 YEARS

a. Profile Code	b. Experience	c. Revenue Index Number *(see below)*
C16	Construction Staking	2
G03	Geodetic Surveying	1
H13	Hydrographic Surveying	1
L02	Landing Surveying	4
S10	Surveying Platting: Mapping	2
T04	Topographic Surveying and Mapping	4

11. ANNUAL AVERAGE PROFESSIONAL SERVICES REVENUES OF FIRM FOR LAST 3 YEARS

(Insert revenue index number shown at right)

a. Federal Work	2
b. Non-Federal Work	3
c. Total Work	5

PROFESSIONAL SERVICES REVENUE INDEX NUMBER

1. Less than $100,000
2. $100,000 to less than $250,000
3. $250,000 to less than $500,000
4. $500,000 to less than $1 million
5. $1 million to less than $2 million
6. $2 million to less than $5 million
7. $5 million to less than $10 million
8. $10 million to less than $25 million
9. $25 million to less than $50 million
10. $50 million or greater

12. AUTHORIZED REPRESENTATIVE

The foregoing is a statement of facts.

a. SIGNATURE 	B. DATE: 10/12/2021
c. NAME AND TITLE: Elizabeth A. Lindsay, P.L.S. President	

ARCHITECT-ENGINEER QUALIFICATIONS

1. SOLICITATION NUMBER *(If any)*: eRFP 20210081

PART II - GENERAL QUALIFICATIONS

(If a firm has branch offices, complete for each specific branch office seeking work.)

2a. FIRM (*or Branch Office*) NAME: Blood Hound, LLC	3. YEAR ESTABLISHED: 2016 / 4. UNIQUE ENTITY IDENTIFIER: 080498979
2b. STREET: 1733 Benbow Court, Suite 5	5. OWNERSHIP
2c. CITY: Apopka / 2d. STATE: FL / 2e. ZIP CODE: 32703	a. TYPE: Limited Liability Corporation
6a. POINT OF CONTACT NAME AND TITLE: Dan Price - Operations Manager	b. SMALL BUSINESS STATUS: N/A
6b. TELEPHONE NUMBER: 888-858-9830 / 407-375-0842 / 6c. E-MAIL ADDRESS: BHI@bhug.com	7. NAME OF FIRM *(If Block 2a is a Branch Office)*: Blood Hound, LLC

8a. FORMER FIRM NAME(S) *(If any)*	8b. YEAR ESTABLISHED	8c. UNIQUE ENTITY IDENTIFIER
Blood Hound, Inc.	1999	

9. EMPLOYEES BY DISCIPLINE

a. Function Code	b. Discipline	c. Number of Employees (1) FIRM	c. Number of Employees (2) BRANCH
	Administration	28	1
	Project Management	11	1
	Field Technician	90	15
	Other	48	1
	Other Employees	177	18
	Total		

10. PROFILE OF FIRM'S EXPERIENCE AND ANNUAL AVERAGE REVENUE FOR LAST 5 YEARS

a. Profile Code	b. Experience	c. Revenue Index Number *(see below)*

11. ANNUAL AVERAGE PROFESSIONAL SERVICES REVENUES OF FIRM FOR LAST 3 YEARS

(Insert revenue index number shown at right)

a. Federal Work	3
b. Non-Federal Work	9
c. Total Work	9

PROFESSIONAL SERVICES REVENUE INDEX NUMBER

1. Less than $100,000
2. $100,000 to less than $250,000
3. $250,000 to less than $500,000
4. $500,000 to less than $1 million
5. $1 million to less than $2 million
6. $2 million to less than $5 million
7. $5 million to less than $10 million
8. $10 million to less than $25 million
9. $25 million to less than $50 million
10. $50 million or greater

12. AUTHORIZED REPRESENTATIVE

The foregoing is a statement of facts.

a. SIGNATURE: 

b. DATE: 3/8/2021

c. NAME AND TITLE: Douglas K Converset - Contract Specialist

ARCHITECT-ENGINEER QUALIFICATIONS

1. SOLICITATION NUMBER *(If any)*: eRFP 20210081

PART II - GENERAL QUALIFICATIONS

(If a firm has branch offices, complete for each specific branch office seeking work.)

2a. FIRM (OR BRANCH OFFICE) NAME: Southeastern Archaeological Research, Inc. (SEARCH)	3. YEAR ESTABLISHED: 1993
	4. DUNS NUMBER: 94-205-4461
2b. STREET: 3117 Edgewater Drive	5. OWNERSHIP
	a. TYPE: Corporation
2c. CITY: Orlando; 2d. STATE: FL; 2e. ZIP CODE: 32804	b. SMALL BUSINESS STATUS: Woman Owned Small Business (WOSB); Woman Business Enterprise (WBE)
6a. POINT OF CONTACT NAME AND TITLE: Anne V. Stokes, PhD, RPA; CEO and Principal	7. NAME OF FIRM *(If block 2a is a branch office)*
6b. TELEPHONE NUMBER: 407-236-7711; 6c. E-MAIL ADDRESS: anne@searchinc.com	

8a. FORMER FIRM NAME(S) *(If any)*	8b. YEAR ESTABLISHED	8c. UNIQUE ENTITY IDENTIFIER

9. EMPLOYEES BY DISCIPLINE

a. Function Code	b. Discipline	c. No. of Employees (1) FIRM	c. No. of Employees (2) BRANCH
02	Administrative	21	11
05	Archaeologist	98	5
	Architectural Historian	9	1
	Certified Archivist	1	
	Curator	6	
29	GIS Specialist	5	1
	Graphic Designer	1	1
	Historian	2	
48	Project Manager	25	1
49	Remote Sensing Specialist	2	
58	Technician / Analyst	2	
	Other Employees		
	Total	172	21

10. PROFILE OF FIRM'S EXPERIENCE AND ANNUAL AVERAGE REVENUE FOR LAST 5 YEARS

a. Profile Code	b. Experience	c. Revenue Index Number *(see below)*
C14	Conservation and Resource Management	6
E01	Archaeological Investigations	6
H08	Historic Preservation	6
R07	Remote Sensing	5

11. ANNUAL AVERAGE PROFESSIONAL SERVICES REVENUES OF FIRM FOR LAST 3 YEARS

(Insert revenue index number shown at right)

a. Federal Work	7
b. Non-Federal Work	7
c. Total Work	8

PROFESSIONAL SERVICES REVENUE INDEX NUMBER

1. Less than $100,000
2. $100,000 to less than $250,000
3. $250,000 to less than $500,000
4. $500,000 to less than $1 million
5. $1 million to less than $2 million
6. $2 million to less than $5 million
7. $5 million to less than $10 million
8. $10 million to less than $25 million
9. $25 million to less than $50 million
10. $50 million or greater

12. AUTHORIZED REPRESENTATIVE

The foregoing is a statement of facts.

a. SIGNATURE	b. DATE
	2/2/2021

c. NAME AND TITLE: Anne V. Stokes, PhD, CEO

Table of Contents

W-9 Form 2
Insurance Certificate 3
Firm Licenses 4
Litigation Statement 5
Exceptions to Draft Contract 6
Similar Project Experience 8
Proposer's Location 11
Woman/Veteran/Minority-Owned Business 12
Executive Summary 13
Project Plan 14
Anticipated Project Challenges 22
Firm's Current Contracts 23
Value-added Services 25
Proposed Schedule 26
Other Material 27
Company Experience 29
Construction Management at Risk (CMAR) Experience 33
Attachment J - Truth in Negotiation 34
Attachment G - E-Verify Form 35
Attachment I - Drug-Free Workplace Form 36
Attachment D - PSL Location Form 37
Attachment E - Cone of Silence Form 38
Attachment F - Consultant's Code of Ethics 39
Attachment H - Non-Collusion Affidavit 41
Contractor's Questionnaire 43

CHA

W-9 Form

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

Request for Taxpayer Identification Number and Certification

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

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

Print or type. See **Specific Instructions** on page 3.

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

CHA Consulting, Inc.

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

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

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

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

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

☐ Other (see instructions) ▶

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

Exempt payee code (if any) _____

Exemption from FATCA reporting code (if any) _____

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

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

III Winners Circle

Requester's name and address (optional)

6 City, state, and ZIP code

Albany, NY 12205

7 List account number(s) here (optional)

Part I Taxpayer Identification Number (TIN)

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

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

Social security number

			–		–				

or

Employer identification number

1	6	–	0	9	6	6	2	5	9

Part II Certification

Under penalties of perjury, I certify that:

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

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

Sign Here **Signature of U.S. person ▶** [signature] **Date ▶** 01/14/2021

General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

Future developments. For the latest information about developments related to Form W-9 and its instructions, such as legislation enacted after they were published, go to *www.irs.gov/FormW9.*

Purpose of Form

An individual or entity (Form W-9 requester) who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) which may be your social security number (SSN), individual taxpayer identification number (ITIN), adoption taxpayer identification number (ATIN), or employer identification number (EIN), to report on an information return the amount paid to you, or other amount reportable on an information return. Examples of information returns include, but are not limited to, the following.

- Form 1099-INT (interest earned or paid)
- Form 1099-DIV (dividends, including those from stocks or mutual funds)
- Form 1099-MISC (various types of income, prizes, awards, or gross proceeds)
- Form 1099-B (stock or mutual fund sales and certain other transactions by brokers)
- Form 1099-S (proceeds from real estate transactions)
- Form 1099-K (merchant card and third party network transactions)
- Form 1098 (home mortgage interest), 1098-E (student loan interest), 1098-T (tuition)
- Form 1099-C (canceled debt)
- Form 1099-A (acquisition or abandonment of secured property)

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN.

If you do not return Form W-9 to the requester with a TIN, you might be subject to backup withholding. See What is backup withholding, *later.*

Cat. No. 10231X

Form **W-9** (Rev. 10-2018)

Insurance Certificate

CHAHOLDING CMURPHY

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 7/28/2021

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER	CONTACT NAME:	
Ames & Gough 859 Willard Street Suite 320 Quincy, MA 02169	PHONE (A/C, No, Ext): (617) 328-6555	FAX (A/C, No): (617) 328-6888
	E-MAIL ADDRESS: boston@amesgough.com	

INSURED	INSURER(S) AFFORDING COVERAGE	NAIC #
CHA Consulting Inc 575 Broadway Albany, NY 12207	INSURER A : Travelers Property Casualty Company of America	25674
	INSURER B : Phoenix Insurance Company A++, XV	25623
	INSURER C : Travelers Indemnity Company, A++, XV	25658
	INSURER D : Travelers Indemnity Co. of America A++, XV	25666
	INSURER E : Berkshire Hathaway Specialty Insurance Company	22276
	INSURER F :	

COVERAGES **CERTIFICATE NUMBER:** **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	X COMMERCIAL GENERAL LIABILITY			630-7E170386	8/1/2021	8/1/2022	EACH OCCURRENCE	$ 1,000,000
	CLAIMS-MADE X OCCUR						DAMAGE TO RENTED PREMISES (Ea occurrence)	$ 1,000,000
							MED EXP (Any one person)	$ 10,000
							PERSONAL & ADV INJURY	$ 1,000,000
	GEN'L AGGREGATE LIMIT APPLIES PER:						GENERAL AGGREGATE	$ 2,000,000
	POLICY X PRO-JECT X LOC						PRODUCTS - COMP/OP AGG	$ 2,000,000
	OTHER:							$
B	AUTOMOBILE LIABILITY			810-4S407410	8/1/2021	8/1/2022	COMBINED SINGLE LIMIT (Ea accident)	$ 1,000,000
	X ANY AUTO						BODILY INJURY (Per person)	$
	OWNED AUTOS ONLY / SCHEDULED AUTOS						BODILY INJURY (Per accident)	$
	X HIRED AUTOS ONLY / X NON-OWNED AUTOS ONLY						PROPERTY DAMAGE (Per accident)	$
								$
C	X UMBRELLA LIAB X OCCUR			CUP-4S539836	8/1/2021	8/1/2022	EACH OCCURRENCE	$ 10,000,000
	EXCESS LIAB CLAIMS-MADE						AGGREGATE	$ 10,000,000
	DED X RETENTION $ 10,000							$
D	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY Y / N	N / A		UB-4S429322	8/1/2021	8/1/2022	X PER STATUTE / OTH-ER	
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? N (Mandatory in NH)						E.L. EACH ACCIDENT	$ 1,000,000
	If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - EA EMPLOYEE	$ 1,000,000
							E.L. DISEASE - POLICY LIMIT	$ 1,000,000
E	Professional Liab			47-EPP-308429-03	8/1/2021	8/1/2022	Per Claim	6,000,000
E	Aggregate			47-EPP-308429-03	8/1/2021	8/1/2022		10,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

If AI box is checked, GL Endorsement Form #CGD604, Auto AI #CAT499 to the extent provided therein applies and all coverages are in accordance with the policy terms and conditions.

Evidence of Coverage. The A&E Professional Liability policy listed above includes Pollution Liability coverage.

CERTIFICATE HOLDER

CHA Consulting, Inc. - Melbourne, FL
927 New Haven Ave.
Suite 206
Melbourne, FL 32901

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

Jared Maxwell

ACORD 25 (2016/03)

Firm Licenses

Log On | Home

Search for a Licensee
Apply for a License
View Application Status
Find Exam Information
File a Complaint
AB&T Delinquent Invoice & Activity List Search

Licensee Details

Licensee Information

Name:	CHA CONSULTING, INC. (Primary Name)
Main Address:	575 BROADWAY ALBANY New York 12207
County:	OUT OF STATE
License Mailing:	
LicenseLocation:	

License Information

License Type:	Registry
Rank:	Registry
License Number:	28386
Status:	Current
Licensure Date:	01/29/2009
Expires:	

*FBPE stopped issuing certificates of authorization in 2020. Our license number is 28386.

CHA Consulting, Inc. is active and in good standing with the Florida Department of State under document number F08000004937

Litigation Statement

CHA is a large professional engineering firm with over 40 offices throughout the United States and Canada. CHA performs thousands of projects each year. CHA's involvement in legal claims and lawsuits is remarkably infrequent for a firm of its size and diversity, due chiefly to its competent and well-trained staff and its rigorous and comprehensive Technical Excellence Program. CHA has not been involved in any criminal matters nor had any disciplinary action taken against the firm or any of its officers. Nor has the firm had any civil judgments entered against it; however, claims against CHA do occur, and CHA has over the past five years been involved in ordinary civil litigation in the course of its business. CHA is confident in its ability to successfully defend, or settle on favorable terms, all such outstanding claims. Furthermore, for the protection of CHA and its clients, CHA always maintains a comprehensive insurance program that includes professional liability, workers' compensation, comprehensive general liability, automobile, and umbrella policies, with limits sufficient to cover the defense and payment of all outstanding claims against CHA. In the opinion of CHA's management, no claim or lawsuit currently pending against CHA will materially affect CHA's ability to perform any ongoing or potential future project.

Exceptions to Draft Contract | Page 1

If awarded a contract as a result of this RFP, CHA would respectfully request the opportunity to discuss and negotiate the following suggested revisions into the contract template provided:

Section	Requested Revision	Reason for Request
VI Acceptance and Final Payment	• Modify "When City finds the work acceptable" to read "When City reasonably determines that the work has been properly performed as required" • Delete requirement of consent of surety • In the fifth paragraph, change "all claims" to "all claims for payment for services" • In the ninth paragraph, modify "all expenses thus incurred" to read "all additional costs reasonably incurred thereby"	• We would like our performance to be tied to meeting the requirements of the Agreement rather than a subjective acceptance or satisfaction of the City • Not applicable to this Agreement • Payment shall require that we release all payment-related claims • Would like a reasonableness standard attached to the costs, and it should be limited to additional costs incurred
IX	Delete in its entirety; replace with a mutual waiver of consequential damages	We think the parties should rely on the first paragraph of Section XI, which is consistent with Florida law and the requirement of the RFP. We also want to make clear that neither party shall be responsible for unforeseeable damages.
XI	In the paragraph after deductibles, delete the last sentence	CHA carries a robust insurance program due to the number of projects and clients. We believe the insurance limits required in the agreement are sufficient to protect the City, and do not want to potentially exhaust all of our insurance for one contract
XII	• Modify the beginning of the first sentence to read "The Consultant shall not be responsible for damage resulting from Acts of God, including . . ." • Delete the second and third sentences	In this role, the consultant should not have this obligation.
XV Inspection and Correction of Defects	• In the second sentence, delete "and that the material and work is entirely satisfactory" • Modify the beginning of the fourth sentence to read "If, on such inspection, the Project Manager reasonably determines that the Contractor has not met the requirements of this Agreement,"	We would like our performance to be tied to meeting the requirements of the Agreement rather than a subjective acceptance or satisfaction of the City
XV Defective Work	• Modify the third sentence to end "reasonably acceptable to the City" • Modify the last sentence to read "All additional costs reasonably incurred for replacement of defective materials and/or work may be charged to Contractor and may be deducted from any moneys due to the Contractor."	• If we try to remedy a nonconformance, we'd like the City's acceptance to subject to a reasonableness standard • Modification would make this consistent with VI above, if approved by the City
XV Deductions	Modify "all expenses thus incurred" to read "all additional costs reasonably incurred thereby"	Modification would make this consistent with VI above, if approved by the City

Exceptions to Draft Contract | Page 2

Section	Requested Revision	Reason for Request
XXVII Performance by Industry Standards	• Modify to read "All aspects of the Services provided or used by Contractor shall, at a minimum, conform to the standards utilized by professionals in Contractor's industry performing projects of similar size and complexity at the same time and in the same location." • Delete the second sentence	Warranties are not standard in the engineering industry
XX Termination for Cause	• In (I), delete "to the City's satisfaction," • In (VI), modify to read "If the City reasonably determines" • In VII delete "as determined in the City's sole discretion"	We would like our performance to be tied to meeting the requirements of the Agreement rather than a subjective acceptance, satisfaction or discretion of the City
XXVII	Delete in its entirety	Even if not included in the contract, a court can award attorney's fees where appropriate. This provision does not require that the City prevail or appropriately pursue legal proceedings for CHA to be on the hook for significant fees

Similar Project Experience

Our team has extensive experience providing planning, design and construction administration services to numerous utility clients for projects that include water, wastewater and reclaimed transmission/distribution systems. The following sample highlights our team's recent, relevant project experience within the last five years. We have also included additional relevant projects in File #3 Standard Form 330.

Storey Park/Innovation Place Utility Project

Orange County Utilities, Orange County, FL

Performance Period: 2014 - 2019
Contract Value: $1,049,702

Orange County has been progressively implementing a program to expand the capacity of its potable water and water reclamation infrastructure systems. As part of these efforts, the County has been constructing numerous transmission mains to increase system hydraulic capacity, provide operational flexibility, and provide system reliability for water, wastewater, and reclaimed water customers in southeast Orange County. These improvements provide the means to interconnect adjacent service areas.

This project was part of the County's system strategy, which included the East Service Area (ESA) Potable Water and Reclaimed Water Storage and Repump Facility project, the Lee Vista Boulevard to Innovation Way Transmission Main project, and the South Service Area (SSA)/ESA Potable Water and Reclaimed Water Main projects. Specifically, the Storey Park project included installing potable water and reclaimed water mains to address projected future potable and reclaimed water consumptive and fire protection needs, and to provide a means of moving potable water from the Eastern Regional Water Supply Facility to the ESA Storage and Repump Facility. This project also provides a way to move wastewater generated by future development and an existing development located south of Wewahootee Road to the County's Eastern WRF. To meet future demands, 9,537 feet of 36-inch water main, 4,027 feet of 30-inch water main (including 200 feet within a railroad crossing), 5,460 feet of 20-inch water main, 955 feet of 30-inch force main, 10,929 feet of 20-inch force main, 9,749 feet of 20-inch reclaimed water main (including 200 feet within a railroad crossing), and 2,032 feet of 12-inch reclaimed water main were installed via jack-and-bore. CHA's services included preliminary design, final design, permitting, and construction management for the potable water mains, reclaimed water mains and force mains that predominantly follow the Innovation Way and Dowden Road alignments.

Relevance to Scope of Services:

- Large-diameter pipe
- Fast-tracked delivery
- Developer-driven infrastructure
- Jack-and-bore
- Preliminary and final design
- Permitting
- Construction administration

Client Contact: *Mark Ikeler, PE, Chief Engineer; (407) 254-9705; markc.ikeler@ocfl.net*

Ernie Caldwell Reclaimed Water Main Improvements – Phase I

Polk County Utilities, Polk County, FL

Performance Period: 2017- 2020
Contract Value: $311,430

In 2016, Polk County completed an update to the Northeast Regional Utility Service Area (NERUSA) reclaimed water master plan that recommended several projects intended to increase the area served by reclaimed water and increase reliability by completing a reclaimed water main loop in the Ernie Caldwell Boulevard (ECB) and US-17/92 corridors.

The Phase I improvements consisted of approximately 10,300 feet of 20-inch diameter reclaimed water main within the ECB corridor extending from Posner Center to a future roadway connection. The project includes stub-outs to future development within the ECB corridor.

Additionally, the project included the future alignment of a 20-inch potable water main and 20-inch to 16-inch wastewater force main that parallel the new 20-inch reclaimed water main in the ECB corridor. The County obtained easements along the south side of the ECB ROW where it was feasible to accommodate the alignment of the proposed utilities in this corridor.

CHA provided the preliminary and final design, permitting, bidding, and construction phase services for approximately 10,300 feet of new 20-inch reclaimed water main within the ECB corridor extending from Posner Center to a future roadway connection with Ridgewood Lakes Phase 2. The project includes stub outs to future development within the ECB corridor. CHA is currently performing the design and construction services for Phase II of the improvements.

Relevance to Scope of Services:

- Installation along a steep slope
- Large-diameter pipe
- Preliminary design completed ahead of pipeline design
- Preliminary and final design
- Permitting
- Bid-phase services
- Construction administration

Client Contact: *Tamara Richardson, Director; (863) 298-4214; tamararichardson@polk-county.net*

Normandy Boulevard Reclaimed Water Main Extension

Volusia County, FL

Performance Period: 2016 - 2018
Contract Value: $124,453

Volusia County needed to extend reclaimed water service to accommodate growth along Normandy Boulevard and northeast of Howland Boulevard. CHA provided design, permitting, and construction administration services to install approximately 4,700 feet of 12-inch and 16-inch reclaimed water main along Normandy Boulevard, turning east on Graves Avenue and crossing Howland Boulevard.

The reclaimed water main on Normandy Boulevard was extended north from the Catalina Boulevard connection and ran north for approximately 3,400 feet, crossing to the north side of East Graves Avenue and turning east. It followed the north right-of-way for about 1,300 feet and crossed Howland Boulevard for a final termination on the northwest corner of the Howland Boulevard and East Graves Avenue intersection. The 12-inch and 16-inch reclaimed water main was installed primarily using horizontal directional drilling. The project was located within two municipal jurisdictions, Volusia County and the City of Deltona, and required ROW permitting with both agencies.

Relevance to Scope of Services:

- Force main design
- Preliminary and final design
- Permitting
- Construction administration

Client Contact: *Michael Ulrich, Utilities Director; (386) 943-7027; mulrich@volusia.org*

Proposer's Location

CHA has four offices located in the state of Florida, with the bench strength of over 1,300 professionals in 40 office locations, company-wide. For this contract, the City of Port St. Lucie will have the direct commitment of our Melbourne office, located at 927 New Haven Avenue, Suite 206, Melbourne, FL 32901, approximately 63 miles from City Hall. **Our proposed principal-in-charge, C. Robert Reiss, PhD, PE, is a local resident, and is based in our Melbourne office.**

In-House Key Technical Resources on Staff

29	92	162	22	57	71	147	94
Architecture	Civil	Electrical	Environmental	Mechanical	Structural	Transportation	Water/Wastewater

Women/Veteran/Minority-Owned Business

CHA is not a certified minority-owned business enterprise (MBE), woman-owned business enterprise (WBE), veteran-owned business enterprise (VBE), or other recognized disadvantaged business enterprise (DBE); however, we work with local DBE firms whenever possible and have a strong history of meeting contractual requirements and goals, concerning the level of utilization of such firms. We make an affirmative declaration to make a good faith effort to incorporate such firms into this contract.

On our team, we have included MBE subconsultant Betsy Lindsay, Inc. (surveying and mapping), and W/MBE subconsultant SEARCH, Inc. (archaeology), who were selected for their W/MBE status and their particular expertise in disciplines necessary to complete this project successfully.

Executive Summary

October 18, 2021

City of Port St. Lucie
121 SW Port St. Lucie Boulevard
Building A
Port St. Lucie, FL 34984

RE: Design of the Southport 24-inch Force Main to Glades Booster Pump Station; eRFP #20210081

Dear Selection Committee Members:

The City of Port St. Lucie is a dynamic, growth-oriented gem on the Treasure Coast. As the seventh-largest city in Florida, there's significant utility work to be completed. We appreciate having had the opportunity to work with you for the past 15+ years. Our Florida water team has been there with you, from small, as-needed assignments, to completing your master plan when Port St. Lucie was the fastest-growing city in the United States. We've completed large design projects like the Rangeline facility and smaller studies, such as the Prineville membrane replacement pilot. We know your facilities, your management approaches and have been honored to work for you. With our office located in Melbourne, we are close by to serve your needs.

We want to be your selected consultant for this contract and remain your trusted consultant for years to come. Key considerations for selecting CHA include:

Cost-efficient services. Our team routinely completes a large volume of pipeline projects. As such, we know how to deliver them well and cost-efficiently. CHA was recently selected against national competitors for a six-year $80 million potable and reclaimed water pipeline renewal, replacement and extension program for the City of Clearwater. We recently completed the design of the Pineda Causeway horizontal directional drill (HDD) of two 20-inch potable water mains crossing the Indian River, Merritt Island and the Banana River for the Cities of Melbourne and Cocoa. For the City of Port St. Lucie, we have designed 10 miles of water, wastewater and reclaimed water pipelines utilizing HDD, jack-and-bore trenchless technology and traditional trench excavation installation. For Seminole County, we completed a HUD-funded septic-to-sewer conversion for the 70-lot Jamestown neighborhood.

Familiar team. Our Florida water team has provided water and wastewater services to local municipalities over the last 23 years. Currently, we hold 45 continuing contracts for water, wastewater and reclaimed water services in Florida, including with the Utilities Commission of New Smyrna Beach; the Cities of Vero Beach, Melbourne, St. Augustine, and Ormond Beach; and Brevard, Orange, Seminole, and Volusia Counties, among others.

We want to work for you. As a former resident of St. Lucie County, I understand the outstanding and sensitive environmental features within the City and area and the City's focus on growth and economic development. Our team will be a committed steward of the City's environmental resources and groth aspirations. For example, the investments by Amazon, FedEx and Cheney Brothers, along with residential development, are continuing to propel the City into a robust future.

We look forward to the opportunity to assist you in continuing to provide your customers with an exceptional level of service. We look forward to working with the City of Port St. Lucie. Our team of highly trained engineers and specialists has the technology, resources and expertise needed to design high-quality infrastructure solutions that last. If you have any questions, please feel free to contact me at (407) 789-0403 or creiss@chacompanies.com.

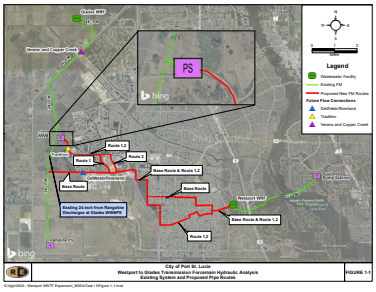
Sincerely,

C. Robert Reiss, PhD, PE
Principal-in-Charge/Florida Water Project Team Leader

927 New Haven Avenue, Suite 206, Melbourne, FL 32901
T 321.345.1760 • www.chacompanies.com

Project Plan

The City of Port St. Lucie is implementing a critical improvement to its wastewater collection system, with this project aiming to improve capacity and operating pressures in the east area of the City near the Southport Wastewater Booster Pump Station. In early 2021, CHA (formerly Reiss Engineering, Inc.) performed a hydraulic analysis for the proposed transmission force main with different diameter pipe sizes and routes. The CHA team that was involved with the hydraulic analysis will also be involved on this project and will bring an understanding of the proposed force main and institutional knowledge of the background and complexity of the system's hydraulics.



The CHA team is familiar with the importance of this project and the challenges that will be necessary to overcome during design and construction, based on our previous planning efforts for the City. Our team has inspected the proposed alignments of the force main and determined the need for trenchless installation in areas due to critical roadway crossings and consideration of residents within the pipeline corridor. Our approach is described in more detail below and on the following pages. This type of project requires a team with the proper understanding, expertise and approach to minimize disruptions caused by traffic interference, noise and interruptions to existing infrastructure. The City needs a team that understands and can successfully execute all key components to make the project minimally disruptive to residents, commercial businesses and visitors.

The CHA team is comprised of Captec Engineering, Inc. (Captec) for design, permitting and construction engineering service assistance; Betsy Lindsay, Inc. (Betsy Lindsay) for surveying and mapping services; Blood Hound, LLC (Blood Hound) for subsurface utility engineering (SUE); Andersen Andre Consulting Engineers, Inc. (AACE) for geotechnical services; SEARCH, Inc. (SEARCH) for archaeological service; and Howe Ecological, LLC (Howe) for ecological surveys.

We will work with the City to understand your needs, from maintenance of system operation to compliance with schedule and fiscal year budget limits. Together with the City, we will define a vision for the project during the scoping process that will confirm success for all key project elements.

Experience has shown us how to successfully execute pipeline projects that include:

- Congested utility and roadway corridors
- Major Florida Department of Transportation (FDOT) highway crossings
- Stormwater culvert and drainage ditch crossings
- Public information for residential community impacts
- Maintenance-of-traffic (MOT) for homes and businesses
- Obtaining easements
- Multi-agency permitting

CHA Typical Project Management Plan (PMP)

While the elements of our project approach include common engineering steps associated with providing successful services and deliverables that meet the City's needs, our ability to deliver on our commitments is unique to CHA's staff and leaders. Our team is a compilation of key CHA staff and strategically selected subconsultants with technical experience, local knowledge and established relationships to work well with City staff. Customer service is your business, and our team will provide the same level of service to you, our customer. We typically approach projects in the following manner, with respect to budgetary goals, timetables and quality control objectives:

- The first step includes meeting with City staff to discuss and prioritize the specific goals and objectives of this project. CHA will provide the key individuals proposed for this project. A clear, concise scope will be prepared to provide a seamless relationship between the City and CHA team members to verify all expectations are met. A specific method employed by CHA during the scope development phase includes interacting with as many of the affected parties as possible to verify all stakeholders' concerns are addressed.

- Following scope approval, we will continue with our communication theme and conduct an initial kick-off meeting to serve as an open forum to discuss the details of the specific assignment, including primary and secondary objectives, review the scope of services, establish budgetary and economic limits and options, and define project schedules and responsibilities.
- We will conduct scheduled project status meetings with the project team on a regular basis. The need and schedule for these meetings will be established during the kick-off meeting and will be scheduled at that time to facilitate the project remaining on schedule. The goal of every meeting will be to verify that there is constant communication and coordination, provide ample opportunities to identify potential problems before they arise and identify cost-saving opportunities.
- Project deliverables will adhere to specifications within the approved scope at each stage of completion. Each deliverable will meet your quality expectations by following our proven quality assurance/quality control (QA/QC) process.

More important than a written procedure, CHA has a proven history of client service and dedication that supports our commitment to maintaining written schedules and budgets and delivering successful projects. The City can be assured the price we quote for services will not change simply because we "ran out of money" and will only change when legitimate and agreed-upon scope changes occur. This commitment has allowed us to better serve the City and its utility customers. As attested by our clients, CHA is committed to developing and delivering sound approaches to project requirements. This philosophy has contributed to CHA's success in gaining repeat clients year after year.

CHA Design Approach and Work Plan

Listed below is the specific scope of work and approach to meet the City's needs while maintaining budgetary goals, timetables and quality for the Southport 24-inch Force Main to Glades Booster Pump Station project.

MEETING PROJECT BUDGETARY GOALS

As a governmental entity and a provider of public services, the City of Port St. Lucie is under significant pressure regarding customer needs/satisfaction and budget constraints. From a budget standpoint, the City must always be aware of consultant-service budgets based on capital improvement plan (CIP) line items or utility funds. More importantly, the consultants' work must produce project results consistent with CIP/funding limitations. At the same time, the City needs consultant assignments completed according to established schedules, as the City may be under-reporting/compliance constraints, political pressure, or pushing the limits of providing consistent customer service.

Experience in similar situations with clients such as St. Lucie West Services District, City of Vero Beach, Orange County, City of St. Cloud, and Seminole County helps us to understand and appreciate the variety of pressures associated with your mission to provide reliable utility service to your customers. CHA strives to help utility staff manage these pressures by providing prompt and personal service and implementing an "extension of staff" philosophy.

CHA's proven approach to managing this project's budget is designed to meet your needs and expectations; it involves several steps, outlined below, starting with efficient and effective project management. Below is an example of the approach that is used on current and past projects to facilitate maintaining project budgets:

1. Form a skilled, experienced team with well-defined roles.
2. Determine the City's specific goals and objectives (deliverable-based) for each assignment.
3. Break the project into specific, measurable tasks.
4. Determine and adhere to communications procedures (one point of contact for the team).
5. Develop a schedule to meet goals with specific milestones and monitor progress.
6. Focus initial efforts on critical path items.
7. Prepare a financial plan (budget).
8. Think of potential problems and prepare contingency plans.
9. Provide project status updates, including monthly progress reports.

Meeting the established budget will be the responsibility of the project manager. As specified in #1 above, the CHA project manager will have an experienced team with multiple engineers working simultaneously on different aspects of the project to meet the project's schedule and deliverable goals. To make sure the budget is met, the CHA project manager will:

1. Set weekly meetings with the design team to verify roles are established and remove any project delays.
2. Monitor budget to verify that the project is on track and not in danger of exceeding the budget.
3. Use Deltek software to set up induvial budgets, alerts and tracking
4. Coordinate with QC early, so the QC reviewer will not be presented with surprises and will perform efficient reviews.
5. Meet monthly with the CHA water/wastewater practice leader to maintain project manager accountability.

This approach will serve as CHA's core direction to the specific experts selected for this assignment. CHA will keep the City's project manager informed and up-to-date on the status of the assigned projects with scheduled phone calls, virtual meetings and monthly progress reports; **this will eliminate day-to-day time commitments and avoid unscheduled time blocks for City staff to provide guidance or assistance.**

MEETING SCHEDULE

CHA places a strong emphasis on schedule when completing assignments. The resulting approach, and overall corporate commitment to maintaining schedules make our team a valuable resource for the City, particularly on projects where fast product delivery and adherence to schedule are priorities.

The internal CHA schedule is broken down such that multiple milestones are established early in the project. For example, the day on which internal QC is to begin is set early in the project, allowing the QC lead to have availability set aside and begin their review on schedule. Permitting agencies are contacted early on before design begins to verify that design requirements from each permitting agency are incorporated, avoiding redesigns and schedule delays.

Our team understands that when scheduled milestones or project goals are not maintained, there is a chain reaction and time lost can often mean added project costs. As such, CHA heavily tracks internal and client deliverable deadlines using scheduling tools such as Microsoft Project and Deltek to hold key task leaders responsible for maintaining the project schedule and deliverable commitments while leading the team to keep our projects on track. Our project managers have access to real-time, detailed information on spend rates, who is charging to their project, a comparison of planned versus actual level of project completion, and many other queries and reports to help them manage their work in the most efficient way possible. The CHA team is committed to completing tasks on time and within budget for the City on this important project, as we are with all of our clients.

QUALITY

Our team will conduct internal crosschecks and peer reviews according to CHA's QA/QC plan for design-phase services. CHA's QA/QC plan provides the means and methods for reviewing drawings, calculations and specifications by independent and experienced pipeline design experts. These reviews will verify a solid basis of design for each project and clear plans, specifications and details for project construction. Constructability reviews are also part of CHA's QA/QC plan process and will be integral to our approach. Our QA/QC approach will confirm that construction activity remains within the project limits, allowing for minimized risks to existing utilities, personnel and the public.

CHA's team member, **Captec, the City's design engineer for the Southport Backbone 24-inch Force Main**, will bring their knowledge and expertise of the City and pipeline design to assist CHA with the QA/QC of this proposed force main.

Scope of Work

The scope proposed by the City in this eRFP includes specific efforts that will require distinctive knowledge and capabilities, which the CHA team is well-equipped to provide. The sections below provide a brief discussion of each scope item and illustrate our capabilities to complete the services needed.

30% Conceptual Design: Our familiarity with the City's system and previous project work, including the technical memorandum we prepared, will facilitate an efficient conceptual design for this project. Specific tasks associated with this phase are:

- ***Pipeline Corridor Route Review/Evaluation:*** While developing the technical memorandum, CHA identified three routes for the proposed force main. These routes were chosen at a conceptual level while developing the memorandum. Now, the CHA design team and Captec will work closely with the City to determine the final force main route. At the initial meeting with the City, CHA will aim to learn the City's goals for the pipeline route, which may include maximizing the route along canals/green space or avoiding specific route options. Taking into

account the City's goals and the routes developed during the technical memorandum, the CHA design team, in conjunction with Captec, will develop up to three routes. Captec, as the City's engineer for roadway, sidewalk and canal/stormwater improvements, will bring their knowledge of the City to select routes that might have a dual benefit, such as installing the force main within a road and milling/resurfacing the road, or installing the force main parallel to specific canals that might require stormwater upgrades. The figures depicting the routes will show the proposed alignment with the specific construction method outlined and include the City's primary goals. Once the final route is selected, the surveying services, geotechnical engineering and SUE will begin.

- ***Topographic Survey:*** Betsy Lindsay will be the first subconsultant to mobilize and perform the topographic survey, including locating existing surface features. Having Betsy Lindsay on the team for survey adds significant value to the City with a team member that possesses previous City experience; this has enabled them to develop an area-wide database that includes several corridors along the proposed route for this project, including various canals and roadways. Betsy Lindsay's previous experience and existing database will translate to cost savings and efficiency to the City on this project. In addition, Betsy Lindsay's services will not end with the topographic survey; they will resume when geotechnical and SUE are completed, so that the location of borings and test holes will be recorded.
- ***Geotechnical Engineering:*** Andersen Andre Consulting Engineers (AACE) will perform geotechnical investigations, including obtaining soil borings, performing soil classifications, establishing groundwater elevations, identifying soil/groundwater contamination and mitigation, and pipe trench preparation specifications for construction. AACE has performed several subsurface explorations within the City. It is anticipated that geotechnical borings will be performed along the pipeline route at specific intervals with the goal to find areas of organics, muck or shallow groundwater that will require the contractor to take into consideration (e.g., replacing unsuitable soils or required well points for dewatering). Geotechnical boring logs will be included in the contract drawings for the contractor's information. It is anticipated that AACE will continue as member of the design team during construction services, providing materials testing, as needed, during construction.
- ***SUE Services:*** Blood Hound will perform SUE services and locate underground utilities and structures along the proposed force main alignment, which will translate to more complete and accurate design plans. The Achilles' Heel of pipeline design is not having sufficient subsurface information, and thus not being able to develop an accurate profile and design of the pipeline. Blood Hound estimates that for every $1 spent on subsurface utility services, it translates to a minimum savings of $4.62 due to more accurate bids, less downtime due to change orders and conflicts with other underground utilities.
- ***Archaeological Services:*** SEARCH will prepare a desktop analysis discussing recorded/unrecorded resources and the archaeological potential of the proposed route(s). This analysis will also include an "unanticipated finds plan" outlining the process to be followed if archaeological material is encountered during construction. The desktop analysis will be submitted to the Florida Division of Historical Resources (FDHR), requesting their review and comment regarding the need for further work. If any areas warrant field survey, SEARCH will conduct the required work at that time.

Integrated Solution Ranking: Integrated solution ranking will occur in conjunction with the pipeline corridor route review/evaluation. CHA has completed similar ranking evaluations previously. For example, two specific projects were completed for the South Seminole and North Orange County Wastewater Transmission Authority (SSNOCWTA). In the first project, CHA evaluated SSNOCWTA's CIP and created a matrix with multiple evaluation criteria. The evaluation matrix was used to develop a ranking system for SSNOCWTA's infrastructure and rank the CIP projects from less severe/less urgent, to more severe/more urgent. This new CIP provided SSNOCWTA with a detailed outline of their budget in the coming years. In the second project, SSNOCWTA was looking to place an abandoned gravity sewer line back into service. CHA developed a detailed evaluation of eight rehabilitation methods (including slip lining, cured-in-place, etc.) that analyzed and ranked each specific rehabilitation method taking into account factors such as budget, schedule and constructibility, etc. Ultimately, a method was chosen that allowed the gravity sewer to be placed back into service and added redundant capacity to a transmission system with a capacity of over 12 MGD. Similar to SSNOCWTA's projects, CHA will:

- Develop detailed descriptions, schematics, costs, and advantages/disadvantages for each of the three proposed pipeline routes. CHA will lead a workshop with the City to review these options.
- A decision-making framework will be used to assess each of the three proposed routes.
- A recommendation will be made on the preferred route for the force main.
- Develop a technical memorandum that documents and summarizes the integrated solution ranking process.

60% Design: The team will prepare construction documents (drawings and specifications) according to the City's Water and Wastewater Standard Specifications and Design Guideline for pipeline design, including plan and profile sheets at a scale of one inch equals 20 feet, City standard technical specifications, and estimates of probable construction cost. CHA will provide the City with copies of the 60% design package for review and comment with the deliverables and format according to our approved scope. The 60% design drawings will include utility conflicts, proposed installation methods, and location of air release and isolation valves; demolition areas will be shown with sufficient detail for permitting. The CMAR process will begin with the 60% design drawings.

Permitting Assistance: CHA will rely on its team member, Captec, and their expertise and local presence to the City to navigate the permitting application process and obtain the required permits.

- ***FDOT:*** Captec has experience permitting through the local FDOT office and will prepare the required application, meet with FDOT, including the pre-application meeting, and respond to requests for additional information (RAI), minimizing delays during the application process.
- ***City of Port St. Lucie Excavation Permit:*** With Captec's local presence to the City, Captec will lead the application process for the excavation and right-of-way (ROW) permit. Captec will attend meetings, as necessary, with the City and respond to RAIs, as needed.
- ***Florida Department of Environmental Protection (FDEP) Force Main Permit Application:*** Captec will apply for the FDEP permit application, construction of a domestic wastewater collection/transmission system and coordinate for the stormwater discharge permit, and notice of intent to use the National Pollutant Discharge Elimination System (NPDES) permit.
- Captec has effectively and efficiently led efforts on the permit application processes listed above for previous projects and will bring their knowledge and expertise to the City on this project.

Project Design Development (60% to 90%): The team will update the construction documents (drawings and specifications) according to the City's comments at the 60% design stage. In addition, comments received from the regulatory agencies will be incorporated into the 90% design documents.

- ***Preparing Construction Manager at Risk (CMAR) Documents:*** We know that effective coordination with the City's CMAR contractor will also be a critical success factor. CHA has significant experience working with utility owners and contractors in the final stages of design to produce a guaranteed maximum price (GMP), final contract documents throughout construction for your project. We recently worked with the City of Orange City to replace more than 44,000 feet of water main using the CMAR delivery method. We will provide QC and constructability reviews in collaboration with the City's CMAR contractor, which provides the means and methods for reviewing drawings, calculations and specifications, and minimizes the City's effort on document review. We will not rely on you to be our technical QA/QC reviewers. Your review should be to verify the project is proceeding according to your expectations.

Project Design Development (90% to 100%): The CHA team will update the contract documents based on comments received from the City and coordination with the CMAR contractor. It is at this stage that the team's surveyor, Betsy Lindsay, will be reengaged in the design process to help develop any easement sketches and legal descriptions, if any easements are required.

Construction Administration Services: CHA has teamed with Captec to provide assistance with construction administration services. The CHA team will still be responsible for certain aspects of the construction administration services, including conforming bid documents, interpreting construction documents, attending progress meetings, conducting substantial and final completion inspections, preparing record drawings, and certifying the project completion to the regulatory agencies. Captec will assist by performing the remaining typical construction administration services, including organizing the pre-construction conference, reviewing shop drawings, providing technical assistance, including requests for information (RFIs), running the monthly progress meetings, and reviewing pay applications. In addition, Captec will establish a community hotline, which will field calls from residents near the construction activities; this will allow comments to be addressed in a timely and efficient manner (within 48 hours) so that callers do not have to wait long to receive a response.

Our approach is to use CHA's and Captec's understanding of the City's unique level and quality of day-to-day construction management to minimize our fees and efforts associated with this project phase, while verifying that the City's project manager is provided with the products and services needed from CHA. We believe continuity of staff to the maximum extent possible throughout the project is an efficient approach that yields a high-quality project. This approach has led to successful project completion and satisfied clients on our past projects.

COST SAVINGS

Our team understands that projects of this magnitude in congested corridors have the potential for cost overruns due to the possibility of encountering unforeseen conditions. Additionally, there are numerous alternative methods of construction and creative methods of design that can result in significant savings. Our team's experience in applying innovative techniques for these types of projects can minimize costly change orders maintaining the City's CIP budget. For example:

- CHA's experience with directional drill projects and post-analysis of our designs with the contractors has developed creative ways to vary drilling angles, reducing pipe lengths and costs. CHA uses the Vermeer© BoreAid® software design tool, which is similar software to what the horizontal directional drill (HDD) contractor will use during construction and considers soil conditions, pipe material and other parameters to plan the bore path and load calculations. Using this software for the necessary HDD along the route will translate to efficiency to the City during design and construction. In addition, CHA will be coordinating design considerations with experienced drilling contractors to help identify creative alignments, which can provide the City with overall cost savings.
- The current economic environment has caused the cost of raw materials to rise significantly and there is no indication to when costs might return to what is considered "normal", before the COVID-19 pandemic began. Therefore, CHA will continue to maintain its relationship with pipe manufacturers and communicate with them to determine if costs of ductile iron fittings, resins or gaskets have begun to decline or continue to be on the rise. Based on the economic situation at that time, it may be necessary to consider alternative pipe materials, such as fusible PVC (FPVC), HDPE or Certa-Lok, which do not make use of ductile iron fittings, and could potentially translate to significant savings.

UNDERSTANDING OF SITE CONDITIONS AND PROPOSED SOLUTIONS

This section demonstrates our understanding of the City's proposed 24-inch force main to Glades Booster Pump Station. This understanding is based on similar projects that have been successfully completed by the same key project team members, physical inspection and photography of the route and team collaboration on an approach using specific abilities of our project team. Our team of professionals is eager to dedicate their talents and commitment to complete this interesting and beneficial project.

One aspect that both CHA and Captec will coordinate on and conduct is **public meetings**. A large portion of the force main route is near residential areas, requiring public notification of residents in the areas surrounding the construction. The project team will assist in preparing documents for notifying adjacent property owners that may be affected by the project, including coordinating the mailing of fliers and attending a public meeting to assist the City with providing information to the public.

In previous projects, public meetings have resulted in less public complaints during construction when provided information on what to expect and the anticipated schedule. On a recent project, the contractor was able to modify the construction sequence so that construction in the area of a local business did not occur during a pre-scheduled event.

Based on our investigations and background research, CHA has identified the following site-specific features within the project limits and vicinity that will require special consideration during design and construction.

Route Characteristics and Design Approach

In general, the pipeline route will extend from the Westport Water Reclamation Facility (WRF) west, to Phase I. The general characteristics of the route include intersection crossings and installing the proposed force main parallel to green space/ canals and potentially some residential areas. The final section of the proposed force main on the western side of the project will extend parallel to larger boulevard roads.

PARALLEL TO CANAL

At first glance, it appears that the majority of the pipeline to the east of I-95 can be installed within the canal ROW. Installation along a canal ROW is a tremendous advantage, as it eliminates any impact to residential areas (driveways, sidewalks, roads, etc.). The potential challenge with installing the force main within the canal ROW is how much or little the canal may be congested with vegetation and overgrowth.

An overgrown and congested canal ROW will require additional effort by the contractor to clear, but ultimately provides less disruption and disturbance than construction within a residential neighborhood.

CHA recently completed two designs for the City of Melbourne, the M1 Canal Force Main and the Western Force Main, both located along a Brevard County Canal ROW. In both projects, CHA designed the force main through clear and congested ROWs.

RESIDENTIAL AREAS

It is not anticipated that long stretches of force main will require installation within the front portion of residential areas. The anticipated route will be located behind the residential homes, along the canal. Construction may still impact the residential homes, but the goal will be to minimize the disruption as much as possible; however, if certain sections of the proposed pipeline end up behind residential homes and parallel to the canal and in front of residential homes through driveways and neighborhoods, the CHA design team will evaluate the installation techniques that will have the least impact on City residents. Trenchless technology is an option that the CHA team has used extensively in congested areas to minimize above-ground disruption.

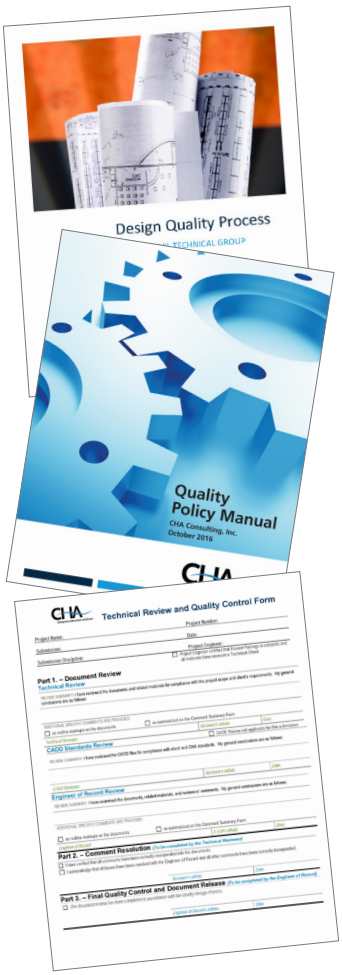
In a recent design project for Seminole County, a gravity sewer was replaced with pipe bursting to avoid long stretches of open-cut in front of citizens' homes. For the South Seminole North Orange County Wastewater Authority (SSNOCWTA) Force Main Replacement project, over 12,000 feet of force main was replaced using HDD installation in residential and commercial areas throughout the suburbs of Orlando.

INTERSECTIONS

Throughout the project corridor, there are several intersections that need to be crossed. These intersections include SW Darwin Boulevard, SW Port St. Lucie Boulevard, SW Savona Boulevard, and others. These boulevards are primarily two-lane and two-way. Crossing these roads presents the CHA design team with two options; the first is to perform trenchless pipeline construction under the roads, eliminating any above-ground disruption. Conversely, the intersections can be crossed with open-cut. The areas provide the possibility for a temporary traffic plan to be set up to direct vehicular traffic around the proposed construction, which is the second option. With open-cut construction, the proposed force main would remain at a constant depth and will be easily accessible for future maintenance, if required.

Crossing I-95 will be required along the project corridor. CHA will rely on the team's pre-planning to contact the regulatory agencies early in the project . We will also rely on CHA's quality control manager, J. Richard Voorhees, PE, BCEE, who was involved with the utility relocations on the I-4 Ultimate Project.

Approach to Quality Control



CHA uses proactive quality management planning and execution that is initiated at the earliest possible time in project development and then implemented and monitored throughout design development. Quality does not simply end with the deliverable. CHA will have a vested interest in the project's quality through project construction and closeout.

Before beginning any project work, CHA's project managers prepare a Project Specific Work Plan (PSWP). The PSWP must comply with basic CHA corporate requirements but is then tailored to the specific project requirements at the project manager's discretion. Each PSWP will include identifying project stakeholders, project location and history, scope of services, schedule, budget, Quality Management Plan (QMP), roles and responsibilities of the team, communication style and frequency, file management procedures, and procedures for managing out of scope items.

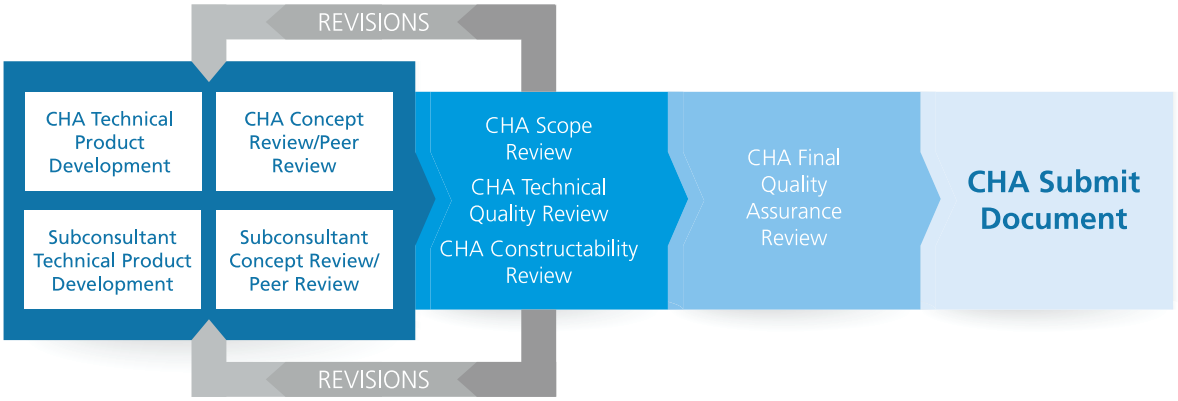
The project-specific QMP will be customized as a collaborative effort involving the project managers and technical leads. CHA's quality manager will be:

1. Available to assist in the QMP preparation should the need arise
2. Responsible for reviewing and certifying the QMP for consistency and compliance before project work begins

CHA uses a "**Red**, **Yellow**, **Green**" ("**RYG**") quality review process so that work products and deliverables are fully and consistently reviewed, resolved and recorded. Our professionals who create the design or prepare the work products to bear the primary responsibility for completeness, content, form, and technical accuracy.

We require a formal check and review of all work products and deliverables. The "**RYG**" quality review process follows a consistent workflow sequence whereby each design element/work product is highlighted in **YELLOW** to signify that review has occurred. Any direct corrections are annotated in **RED**, and commentary and/or instructions are annotated in **BLUE** or **BLACK**. The checker signs and dates the review set and returns the documents to the design element/work product originator.

The originator evaluates the checkers' comments and works with the checker to resolve each comment. **GREEN** annotations signify agreement with, or the resolution of, the review comments. Corrections are made to the designs or drawings and are then verified by the checker who places a QA/QC stamp on each drawing or design. Finally, the originator, checker, corrector, and verifier sign and date each drawing or design to verify that the process has been followed for complete quality compliance. The team does not advance or submit any work products or deliverables until they have satisfied the QMP.



Anticipated Project Challenges

The biggest challenge anticipated in this project, and for pipeline design in general, is that constructing underground utilities has a higher probability of encountering unforseeen conflicts. The unknown factor plays a role in pipeline design concerning what is located underground. Present-day technology, used by our proposed surveying and mapping subconsultant, Betsy Lindsay, Inc. and our proposed subsurface utility engineering (SUE) subconsultant, Blood Hound, LLC, will allow us to identify more of the underground utilities/structures that will impact the alignment. Our team has worked along the corridor and can use previous field data to verify we have the best available information when selecting the route. We understand that unforeseen obstructions may still be encountered during construction. CHA understands how to address these challenges, including providing field directive design that will allow the contractor to avoid the obstruction and maintain the schedule. Archaeological finds may be another challenge encountered during design/construction; this will be addressed in conjunction with CHA's team member, SEARCH, Inc., a firm that provides cultural resource services, including archaeology. Should any challenges arise on this project, the CHA team has the experience to find solutions in close communication with the City.

Firm's Current Contracts

Owner/Client	Project Name	State	Contract Amount	Estimated Completion Date
City of Clermont, FL	LSE42 Engineering Report	FL	$8,745	10/22/2021
Toho Water Authority, FL	Toho WTA - Bella Lago WTP Sulfide Treatment Pilot Study	FL	$32,885	10/29/2021
Orange County, FL	SWRF Pump Station Expansion and Upgrades - Phase 2 - PO C14800	FL	$2,328,655	10/30/2021
Polk County, FL	Hydraulic Modeling Support Services	FL	$24,970	11/20/2021
Polk County, FL	Polk County Utilities - Population Projection	FL	$78,658	11/22/2021
Orange County, FL	Oak Meadows WSF Improvements	FL	$390,388	11/30/2021
TLP Engineering Consultants	World Drive Extension - Phase III	FL	$179,326	11/30/2021
City of Apopka, FL	City of Apopka - CUP Compliance Permitting	FL	$25,000	12/17/2021
Tavistock East II LLC	Sunbridge PW & RW SRF Planning Support	FL	$30,100	12/17/2021
South Seminole North Orange County, FL	SSNOCWTA - 2021 Drawdowns	FL	$54,370	12/17/2021
Polk County, FL	Polk County-Auburndale-Winter Haven Interconnect	FL	$291,949	12/29/2021
City of Casselberry, FL	Sausalito FM - PO 78303 (New PO 79684)	FL	$199,979	12/31/2021
City of Clearwater, FL	WWCS Point Repairs and RPR & Consulting Services	FL	$98,399	12/31/2021
City of Clearwater, FL	RCW Park Connections	FL	$166,438	12/31/2021
City of Clearwater, FL	Clearwater Wtr. Main Replacement S. Ft. Harrison	FL	$41,703	12/31/2021
City of Haines City, FL	Conceptual Plan - 5 MGD WTP	FL	$149,670	12/31/2021
City of Melbourne, FL	Melbourne - South Central F Septic to Sewer Public Engagement	FL	$30,510	12/31/2021
City of New Port Richey, FL	Water Audit Loss Ph 1	FL	$24,723	12/31/2021
Air Force Civil Engineer Center - San Antonio, TX	Tyndall AFB - Site Dev & Utilities	FL	$240,000	12/31/2021
South Seminole North Orange County, FL	PS Rehabilitation/Replacement	FL	$185,151	12/31/2021
Tavistock East II LLC	Sunbridge WTP & WWTP Design	FL	$3,125,514	12/31/2021
Toho Water Authority, FL	Cypress Lake Transmission Update	FL	$304,728	12/31/2021
Walt Disney World Co.	Polynesian Resort Potable Wtr HM Eval	FL	$39,560	12/31/2021
City of Oviedo, FL	Downtown Master Plan Capacity & Hydraulic Analysis	FL	$38,045	1/7/2022
City of Haines City, FL	WUP Compliance Assessment and Implementation Plan	FL	$145,300	1/14/2022
City of Apopka, FL	City of Apopka - Golden Gem Reuse Station HSP	FL	$34,919	1/31/2022
In Good Company Inc.	Melia Restaurant reno- Orlando-IGCH	FL	$78,000	2/4/2022
Polk County, FL	Ernie Caldwell RWM Phase II	FL	$339,428	2/24/2022
City of Melbourne, FL	Melbourne - CUP Modification Assistance	FL	$74,000	2/25/2022
City of Vero Beach, FL	Canal Intake Station and Filtration System Design	FL	$161,000	2/28/2022
Pinellas County, FL	S. K. Keller Polyphosphate Building Process Upgrades	FL	$227,427	2/28/2022
City of Port St. Lucie, FL	Westport WWTF Expansion	FL	$4,037,101	3/3/2022
Brevard County, FL	Barefoot Bay PS Final Design	FL	$146,100	3/17/2022
City of Haines City, FL	City of Haines Southern Dunes RIB	FL	$195,083	3/18/2022
City of Melbourne, FL	Lift Station #17 Renovation, PO #21001398-01	FL	$109,590	3/18/2022
Orange County, FL	OCU - SWRF Surcharge Hydraulic Analysis, PO# C20905C03	FL	$82,111	3/18/2022
Orange County, FL	VFD Improvements - PO C17901E-012	FL	$351,680	3/21/2022
City of Haines City, FL	WWTF Biological Treatment Process Improvements	FL	$735,290	3/31/2022
Jacobs Engineering Group Inc.	Group 6 UDF Design Modification and Implementation Services	FL	$194,989	4/8/2022
City of Melbourne, FL	Melbourne WW Master Plan Update	FL	$197,703	5/6/2022
Black & Veatch	Hamlin Groves Trail & Avalon Road Master Pump Station	FL	$193,745	5/31/2022
Black & Veatch	Hamlin Groves Trail & Avalon Road Master Pump Station	FL	$176,883	5/31/2022
City of Vero Beach, FL	Work Order No. 7 - Stormwater Main Support Services and Permitting	FL	$147,323	6/17/2022

Owner/Client	Project Name	State	Contract Amount	Estimated Completion Date
City of Orlando, FL	LS 218 Relocation	FL	$423,280	6/30/2022
South Seminole North Orange County, FL	SSNOCWTA FY20/21 Pipeline Replacement	FL	$162,879	7/11/2022
City of Haines City, FL	Haines City_2021 Water Protection Grants	FL	$24,000	7/15/2022
City of Ocoee, FL	2021 As-Needed Hydraulic Engineering	FL	$7,500	7/20/2022
Toho Water Authority, FL	Toho Wastewater Master Plan	FL	$470,381	8/5/2022
Orange County, FL	OCU-Wekiwa Septic Tank Retrofit Ph2	FL	$81,397	8/6/2022
City of Clearwater, FL	City of Clearwater Task 12 Potable Water Piping Imp	FL	$1,224,860	8/25/2022
City of Sanford, FL	City of Sanford - Wastewater Master Plan	FL	$204,951	8/26/2022
City of St. Cloud, FL	St. Cloud_UDF	FL	$254,990	9/15/2022
City of Clermont, FL	Clermont Reclaimed Water Master Plan	FL	$51,650	9/30/2022
City of Cocoa, FL	Sea Ray Dr_Water Main Sykes Creek	FL	$10,004	9/30/2022
Orlando Utilities Commission	OUC Phase III Distribution Master Plan	FL	$243,618	11/11/2022
Clay County Utilities Authority, FL	CCUA Consumptive Use Permitting Support	FL	$265,094	12/23/2022
Orange County, FL	Pump Station R/R Package 46 Improvements - PO Y20-905C-01	FL	$146,214	12/30/2022
City of Vero Beach, FL	Work Order No. 8 - Stormwater Main Subaqueous Design	FL	$622,248	1/27/2023
City of Melbourne, FL	Pineda Causeway WTM SDC/RPR	FL	$1,689,982	7/31/2023
Orange County, FL	Pump Station R/R Package 34 Improvements - PO C17091E-015	FL	$343,664	7/31/2023
City of Clearwater, FL	Clearwater WW Task 1 RPR Svcs 19-0011 UT	FL	$10,000	9/30/2023
Tampa Bay Water, FL	Hillsborough County Booster Station	FL	$1,842,493	11/9/2023
Orange County, FL	EWRF PLC Replacements	FL	$458,304	3/15/2024
Orange County, FL	OCU EWRF Pump-Mxr-Aerator-Gate FM Repl	FL	$454,128	3/15/2024
Orange County, FL	OCU NWRF Clarifiers, WAS, Meter & Lab Improv.	FL	$398,091	4/26/2024
Captec Engineering Inc.	Wastewater and Reuse Master Plan	FL	$50,765	
Captec Engineering Inc.	Potable Wtr Master Plan	FL	$44,320	
City of Bowling Green, OH	As-Needed Professional Engineering Services	FL	$15,000	
City of Haines City, FL	RTP Grant Application	FL	$12,000	
City of Haines City, FL	Section 319 Grant Application	FL	$15,435	
City of Lake Wales, FL	NW Water Main Extension Design	FL	$262,531	
City of Orange City, FL	Potable Water Main Replacement Design	FL	$602,755	
City of Sanford, FL	Gravity Main and Sanitary Sewer Improvements Services	FL	$46,995	
Lane Construction Corporation	Tyndall - DB Airfield Drainage (Zone 6)	FL	$150,000	
Confidential Client, FL	2021 On-Call Technical Assistance	FL	$200,000	
South Seminole North Orange County, FL	General Professional Engineering Services - Air Release Valve Odor Control Maintenance	FL	$463,905	
South Seminole North Orange County, FL	General Professional Engineering Services - Utility Locates	FL	$746,161	
South Seminole North Orange County, FL	General Professional Engineering Services - General Services	FL	$588,236	
South Seminole North Orange County, FL	General Professional Engineering Services - Pump Station and Line Projects	FL	$585,153	
Toho Water Authority, FL	Cyrils Drive PW Distribution Calibration	FL	$16,890	

Value-added Services

Optional value-added services that CHA recommends include:

- Selecting the appropriate construction method for the pipeline installation during design. CHA completed the replacement of the Eagle Circle force main in 2017 for SSNOCWTA, and made use of four different installation methods (open-cut, jack-and-bore, HDD, and pipe bursting). Following construction, it was determined that pipe bursting saved the client money and time.
- CHA will utilize the Vermeer© BoreAid® software design tool, which is similar software to what the HDD contractor will use during construction and considers soil conditions, pipe material and other parameters to plan the bore path and load calculations. Using this software for the necessary HDD along the route will translate to efficiency to the City during design and construction.
- The hydraulic model that CHA has used previously will continue to be used to confirm the pipeline hydraulics and pipe diameter size.
- Alternate pipe material will be considered, which could translate into savings for the City, including fusible PVC (FPVC), which eliminates ductile iron fittings.

CHA previously completed the technical memorandum mentioned in previous sections; this provides a familiarity with the project, which will allow CHA to hit the ground running and coordinate with our subconsultants quickly, as compared to firms that have not seen the project previously; this also provides us with an existing relationship with the City's team. CHA and its team members have worked previously together with the City on many projects and this will translate to a trusted relationship with open communication throughout the project.

Proposed Schedule

Task Name	Duration (Calendar Days)	Months from NTP
		1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
Project Initiation	**6**	
Notice to Proceed (NTP)	0	
Internal Kick-off Meeting	1	
Project Kick-off Meeting	1	
Site Visits/Data Collection	4	
Task 1: 30% Conceptual Design	**115**	
Pipeline Corridor Route Review/Evaluation	30	
Geotechnical Investigation/Site Survey	30	
Topographic Survey	2	
Preparation of 60% Design Documents		
Internal QA/QC 60% Design Documents		
60% Design Submittal to City and City Review		
60% Design Review Meeting	38	
Task 2: Permitting	**30**	
FDOT Permit	30	
City of Port St. Lucie Excavation Permit	30	
FDEP Permit Wastewater Collection System Permit	30	
Task 3: Project Design Development (60% to 90%)	**30**	
Preparation of 90% Design Documents	30	
Internal QA/QC 90% Design Documents		
90% Design Submittal to City and City Review	30	
90% Design Review Meeting	30	
Prepare CMAR Documents	1	
Develop CMAR Requirements	30	
CMAR Solicitation Documents	7	
Assist City with Bidding and Submittal Review	7	
Task 4: Integrated Solution Ranking	**30**	
Development of Integrated Solutions	30	
Decision Making Framework Development	30	
Integrated Solution Recommendation		
Technical Memorandum	30	
Task 5: Final Design (90% to 100%)	**30**	
Preparation of 100% Design Documents	30	
Internal QA/QC 100% Design Documents		
100% Design Submittal to City and City Review	30	
Task 6: Easements	**30**	
Easement Sketch and Description	30	
Task 7: Construction-phase Services	**231**	
Public Meeting*	1	
Attend Pre-Construction Meeting*	1	
Review Shop Drawings*	60	
Review and Respond to RFIs/Change Orders/Pay Requests*	186	
Observe Construction*	186	
Substantial/Final Completion Inspections	30	
Certificate of Completion/Record Drawings	15	

Other Material

Water Experience

Master Planning and Feasibility Studies

CHA has extensive experience in developing system-wide water master plans, capital improvement plans (CIPs), and rate studies. Our engineers and planners will assist your community in implementing the most cost-effective plan.

Water Solutions

Our highly qualified staff has developed thousands of water-related projects, including source of supply, distribution, storage, treatability evaluations, treatment plant design, operation and maintenance plans, and sludge dewatering.

Water Distribution

CHA's staff has planned, permitted, designed, and delivered millions of feet of water main. This knowledge, combined with our modeling, tank and pump station design expertise, makes CHA an industry leader.

Water Treatment

CHA's highly qualified staff has evaluated and designed municipal water treatment facilities for cities and counties throughout the United States; this includes facility design and optimization using state-of-the-art treatment technologies.

Water Resources

Safe and clean water is essential for a healthy community. Knowledge is essential for developing water systems. We have developed thousands of water-related projects, each taking into account our client's unique environmental, water quality, permitability, and funding concerns.

Water Services

- Consumptive use permitting
- Asset management
- Conventional and advanced treatment
- Fresh, brackish and surface water sources
- Plant hydraulics
- Supervisory control and data acquisition (SCADA)
- Contract administration and resident inspection
- Distribution system
- Water utility planning
- Groundwater well design
- Bidding support
- Merger/integration of water systems
- Smart water consultancy
- Emerging contaminant and regulatory support
- Process analysis and design
- Environmental permitting
- Operations support
- Sustainable solutions
- Water quality and regulatory compliance
- Water recycling and reuse
- Construction services
- Program management

Wastewater Experience

Master Planning and Feasibility Studies

CHA has extensive experience in developing system-wide wastewater master plans, CIPs, and rate studies. Our experienced staff of engineers and planners will help your community implement the most cost-effective overall plan.

Wastewater Collection Systems

As a leading collection system and wet weather flow engineering firm, we have assisted many clients in constructing new gravity sewer lines, pump stations, and force mains. Our experience includes modeling, sanitary sewer evaluation surveys (SSES), infiltration and inflow (I&I) studies, sewer system rehabilitation, and equalization basin design.

Reclaimed Water

We have designed and permitted innovative reclaimed water systems using traditional techniques and innovative approaches to maximize value of the resource. Our team is well-versed in the latest reclaimed water regulations and they vigorously embrace a "green" design philosophy in all their reclaimed water design, permitting, and planning work.

Wastewater Treatment

Our staff specializes in developing innovative, environmentally sound, and cost-effective wastewater treatment systems to meet today's increasingly stringent regulations; these include conventional and innovative treatment technologies for domestic wastewater treatment.

Funding

Securing funding is as important as the engineering for a successful project. We've secured millions of dollars for wastewater projects on behalf of our clients.

Wastewater Services

- Solids handling, treatment, and disposal
- System hydraulic modeling
- Treatability studies and process evaluation/ optimization
- Secondary and tertiary treatment system design
- Biological nutrient reduction (BNR)
- Enhanced BNR (EBNR)
- Capacity, management, operations, and maintenance (CMOM)
- SCADA
- Wastewater collection systems:
  - Collection system and pump station design
  - I&I studies
  - SSES
  - Sewer rehabilitation
  - System mapping
- Contract administration and construction observation

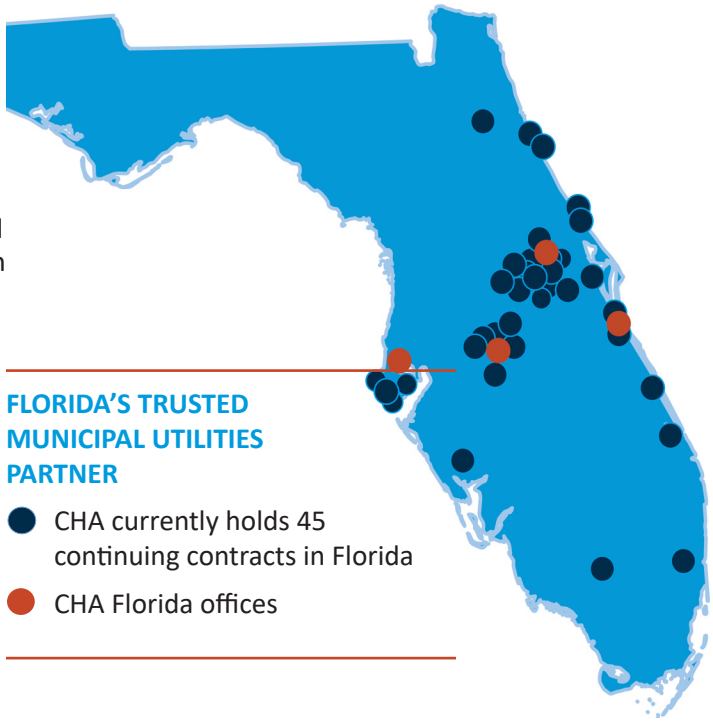
Company Experience

CHA's extensive network of specialized experts provides the City of Port St. Lucie with access to our comprehensive resources to develop creative, workable solutions to accomplish the City's goals. A selective screening process and active industry involvement verify that we employ and partner with dynamic thinkers. We have organized our team strategically so that the required production capacity and capabilities to address the opportunities and challenges presented throughout this project are available to the City.

CHA understands that collaboration, organization and communication are paramount to project success. Our team's diverse skill sets and access to resources will help the City achieve it's goals. We find that a team approach centered around you is the best way to provide valuable services. Our professionals across multiple disciplines, coupled with the expertise of our subconsultants, create a dynamic collection of knowledgeable, experienced practitioners that deliver thorough, high-quality products and services to our clients.

CHA's proposed team has a diverse range of specialized experience and has worked together successfully on other local municipal water projects. We have carefully crafted this team based on this work history, our understanding of the City's needs and our ability to deliver quality services on this project.

CHA Consulting, Inc. (CHA) prides itself on being a client service-oriented firm with expertise in municipal water, wastewater, and reclaimed water services, equivalent to those proposed project. Through experience gained by providing utility engineering services, CHA has built a reputation for providing responsive service combined with deep technical capabilities. In addition to our reputation as a leading water, wastewater, and reclaimed water design, permitting and construction management firm, CHA is a preferred consultant for many municipalities. We currently hold 45 continuing on-call contracts with public utilities in Florida for the same types of services proposed for this project. Our clients call on us to complete their most challenging and high-profile projects. We encourage the City to contact the references listed in our response to learn more about how we deliver value to our clients.



The CHA team is well suited to deliver on the full suite of services identified in the scope of work. From transmission/distribution systems to wastewater collection/force main systems and everything in between, we and our staff have solved challenges and delivered solutions. Select examples are provided below.

Water, Wastewater, and Reclaimed Water Pipeline and Pump Station Design and Construction Management Services. We know pipeline and pump station infrastructure design, from small diameter residential rehabilitation to major pump station designs. Our conveyance design work is completed in AutoCAD. More complex designs, such as our 18,000 feet of FPVC subaqueous design under the Indian River, Merritt Island and Banana River for the cities of Cocoa and Melbourne utilize Vermeer© BoreAid® software.

Pipeline designs for Orange County Utilities and SSNOCWTA include design of pipelines through urbanzied and congested areas. In addition, pipeline designs for Polk County Utilities include pipeline design along County roads with a steep bank behind the sidewalk.

We recently completed the Island Water Reclamation Facility (WRF) diffuser rehabilitation design for Fort Pierce Utilities Authority. For Orange County, we designed the 216 MGD SWRF influent pump station. Be it water, wastewater, or reclaimed water conveyance design, we can meet your needs.

Construction management services. CHA provides construction management services, including resident project representative (RPR) inspection services on the projects we design and those designed by others. CHA provided construction management services for the $40 million Seminole County Yankee Lake Surface Water Treatment Plant (WTP) intake and transmission pipeline. Additional projects include the Volusia County Normandy Boulevard pipeline project, and 10,300 feet of reclaimed water pipeline along Ernie Caldwell Boulevard for Polk County, among others. We have recently expanded our team to include full-time RPR staff with extensive pipeline experience. Located out of the Melbourne office, Charles Warren has significant pipeline experience with expertise in horizontal directional drilling (HDD) in particular.

Regulatory compliance. CHA is well-versed in solving complex regulatory challenges; this includes nitrification/chlorine residuals in distribution systems, UDF, and I&I control. We understand the City's challenges associated with rapidly changing regulatory requirements and maintaining the level of service provided to your customers. We are prepared to assist both with funding and with design services.

Our approach to project delivery includes making sure that we understand the rules themselves, the regulators and the current policy positions to provide the most optimal solution for you moving forward. From the SJRWMD and United States Army Corps of Engineers (USACE), to the Florida Department of Transportation (FDOT) and Florida Department of Environmental Protection (FDEP), we know the regulations and regulators associated with water, wastewater and reclaimed water projects.

Grant and loan funding. As with many of our clients, we understand that the City will significantly benefit from funding assistance with its projects. The CHA team is well versed in obtaining funding and managing projects that are funded through state and other grant or loan programs. Completing project deliverables, documenting program requirements and meeting funding schedules are vital to maintaining funding compliance. The team assigned to this project assisted the City of Eustis in obtaining a $2.5 million grant from the SJRWMD and 75% district cooperative funding for the City of Haines City's Reclaimed Water Storage and Pumping System project. We are currently assisting the City of Orange City with SRF loan funding/forgiveness and compliance monitoring for the potable water pipe rehabilitation and looping disinfection by-product (DBP) reduction project.

With ever-tightening CIP budget constraints, CHA will assist the City in identifying and pursuing funding opportunities. As an example of success, the following table shows CHA's funding experience for one of our existing clients, the City of Haines City.

CITY OF HAINES CITY FUNDING EXPERIENCE				
Project Name	**Total Project Cost**	**FDEP/SRF Loan**	**SWFWMD/ Cooperative Funding**	**CDBG Share**
Reclaimed Water GST and Pump Stations	$6,500,000	$2,105,000	$4,395,000	N/A
Force Main and Pump Station Improvements	$12,225,000	$12,225,000	N/A	N/A
Lake Eva RIB Feasibility Study	$357,710	N/A	$268,282	N/A
WWTP Expansion	$31,050,000	$31,050,000	N/A	N/A
Rebuild Florida CDBG - Mitigation General Planning Support Program (Generator)	$685,000	N/A	N/A	$685,000
Rebuild Florida CDBG - Mitigation General Planning Support Program (Planning)	$300,000	N/A	N/A	$300,000
Total:	**$51,117,710**	**$45,380,000**	**$4,663,282**	**$985,000**

Ability to Meet Schedule and Budget Requirements

Our project team is structured such that C. Robert Reiss, PhD, PE will be directly responsible to you for time and budget requirements, with ongoing coordination and communication. Our leadership team is pleased to offer Robert as our proposed principal-in-charge. You will have the maximum responsiveness our firm can provide, available to your project.

Our recent success with obtaining competitive bids is presented in the table below and results from quality design documents and an accurate opinion of probable construction costs.

	Project	Engineer's Estimate	Bid Range
1.	Ernie Caldwell Boulevard Reclaimed Water Main Phase 1 *Polk County, FL*	$2,047,000	$1,643,980 - $2,329,169
2.	Normandy Boulevard Reclaimed Water Main Project *Volusia County, FL*	$1,164,800	$793,053 - $868,900
3.	Package 8 Pump Station R/R Improvements *Orange County, FL*	$1,059,000	$691,830 - $940,000
4.	Storey Park Utilities Part A *Orange County, FL*	$3,490,625	$3,189,292 - $4,709,884
5.	Reclaimed Water GST and Pump Stations *Haines City, FL*	$8,758,300	$8,198,370 - $9,052,221

Funding Solutions

Funding Resources and Budgeting

The ability to consider economic factors and budgets and secure favorable financing is an important factor in designing and implementing any major capital improvement project. We recognize the importance of cost-effective design and work closely with our clients to maximize their efforts and meet budget requirements. Where appropriate, our designs incorporate phasing opportunities, constructability review and value engineering as a means of reducing initial project costs and controlling costs.

Our team has extensive project funding experience for municipal utility projects on the federal and state levels. We work closely with our clients to identify the most appropriate funding sources and work diligently to negotiate and secure the best rates and payment options.

Project phasing and innovative implementation approaches are key components of any financing and cost control strategy. Our team has extensive experience developing multiple construction contracts and fast-tracking design and construction activities to minimize cost and meet funding agency requirements, including grant or loan limits, prescribed drawdown schedules, and user rates.

Funding Options and Experience

There are a several possible sources of funding for water and wastewater projects and many creative financing strategies that can be used to reduce the financial impacts on user rates. We work closely with our clients to identify and evaluate all potential funding sources and options, including federal and state grant and loan programs. We negotiate with these agencies to maximize grant funding where possible and obtain favorable repayment terms for loans. Our services typically include recommendations for the combination of funding opportunities best suited for the client. We offer comprehensive funding assistance in the following areas:

- Identifying and evaluating funding opportunities
- Preparing grant and loan applications
- Developing financing projections and preparing narratives to justify and support applications
- Negotiating rates and repayment terms
- Performing Environmental Assessments and related environmental studies
- Administering grants and loans after they have been secured

Project Highlight

Tradition and Western Groves Communities Reclaimed Water Main Expnasion | City of Port St. Lucie, FL

In 2020, CHA prepared grant funding applications to South Florida Water Management District (SFWMD) for the Tradition and Western Groves Communities Reclaimed Water Main Expansion project, for which the city was awarded $148,000 in state funding and a $148,000 district match, for a total of $296,000.

Budget Constraints and Value Engineering

The City must always consider customer and staff desires, balanced with budget limitations. From an organizational budget standpoint, you must always be aware of consultant-service budgets based on CIP line items and current utility funds. More importantly, consultants working under this contract must produce results/projects consistent with CIP/funding limitations. CHA strives to help utility staff deal with these pressures by providing prompt and personal service and implementing an "extension of staff" philosophy.

Examples of Value Engineering and Cost Saving Solutions

SSNOCWTA Eagle Circle Force Main Replacement. The Eagle Circle force main was comprised of 4,430 feet of 10-inch, C-200 thin wall PVC and 3,770 feet of 16-inch cast-iron pipe. SSNOCWTA proposed this project to remove the thin wall C-200 PVC and cast-iron pipeline in their transmission system due to the potential for failure. The location of the existing force main was through an existing golf course and a series of residential streets adjacent to the golf course. Challenges included the necessity to avoid any wastewater service interruptions to the residences and the golf course, minimize impacts to residents due to the construction activities, and minimize capital and restoration costs, considering the amount of pipe that required replacement.

Solution: Our team carefully analyzed the proposed path of the new force main, including the installation methods best suited for each segment of pipeline that would minimize the construction impact and still reduce costs. When construction was completed, five pipeline installation methods were used, HDD, pipe bursting, open cutting, slip lining, and jack-and-bore. Each pipe installation method was specifically selected based on a detailed analysis of the site-specific characteristics. The project was completed ahead of schedule, experienced few delays and imparted no unintended damage along the project corridor. The use of site-specific pipe installation methods provided a **project capital cost savings of more than $200,000** for SSNOCWTA, minimized impacts to the residents and golf course and reduced the risk of damage to existing utilities without any interruption in service.

Brevard County Regulatory Compliance. For the Brevard County Mims WTP, a prior consultant had advised of the need for a $3 million ion exchange project, which was added to the CIP, to meet 4-log regulatory requirements. Our team was brought in for innovative options—for the cost of a $50,000 study, we were able to provide additional supporting data and an updated operational protocol to FDEP that demonstrated 4-log regulatory compliance, thereby eliminating the completion of an unnecessary, multi-million dollar project.

Project Highlight

Delwood Super Station | Hillsborough County, FL

This project specifically repurposed the Dale Mabry Advanced WWTF to a 10 MGD triplex master pump station, a 6 MGD reclaimed facility and a public park. The design included installing the wet wells partially submerged and partially aboveground to save significant operation and maintenance costs long term. The design also reduced capital costs by requiring lower horsepower pumps and simplifying the construction due to less excavation and dewatering. The design approach also provided for the upstream lift stations to continue to operate by more closely matching the original head conditions to the elevated headworks structure of the WWTF. ***We calculated more than $200,000 would be saved in power costs over 20 years as a result of our innovative design approach, in addition to the reduced noise nuisance to the surrounding neighborhood for depth and duration of dewatering during construction.***

Construction Management at Risk (CMAR) Experience

Experience with the CMAR Delivery Method

We know that effective coordination with the City's CMAR will be a critical success factor. CHA has significant experience working with utility owners and contractors in the final stages of design to produce a guaranteed maximum price (GMP) and final contract documents throughout construction for your project. We will provide quality control and constructability reviews according to our project management plan (PMP) and in collaboration with the City's CMAR contractor, which provides the means and methods for reviewing drawings, calculations and specifications and minimizes City effort on document review. We will not rely on you to be our technical QA/QC reviewers. Your review should be to confirm that the project is proceeding according to your expectations.

Collaborative Delivery Project Experience

Our project team has completed various collaborative delivery utility projects that entailed pipeline transmission mains. The table below demonstrates the relativity and diversity of the team's experience with CMAR-delivery projects. All projects were completed on time, within budget and in the last 10 years.

Successful CMAR (Collaborative Delivery) Representative Projects	Client	Completion Year	Pipeline distribution/transmission	Completed on-time	Completed on or under budget
CRUSA Water Production Facility and System Improvements/Yard Piping *Polk County, FL*	Polk County Utilities	2020	♦	♦	♦
Morris Bridge Potable Water Pump Station and Transmission Main Design-Build *Tampa, FL*	City of Tampa	2020	♦	♦	♦
Narcoosee Road Package Booster Station *St. Cloud, FL*	Toho Water Authority	2020	♦	♦	♦
Delwood Super Station Design-Build and Force Mains *Hillsborough County, FL*	Hillsborough County	2018	♦	♦	♦
Little Wekiva River Force Main Replacement Design-Build *Altamonte Springs, FL*	City of Altamonte Springs	2018	♦	♦	♦
Lynwood WTP and Water Main Upgrades *Seminole County, FL*	Seminole County Environmental Services	2015	♦	♦	♦
Odor Control Facility Design-Build *Oviedo, FL*	City of Oviedo	2013		♦	♦
Country Club WTP and Water Main Upgrades *Seminole County, FL*	Seminole County Environmental Services	2012	♦	♦	♦
Regional WTP at Yankee Lake and Transmission Main *Seminole County, FL*	Seminole County Environmental Services	2012	♦	♦	♦

Attachment J - Truth in Negotiation

Attachment J - Truth In Negotiation

"A City for All Ages"

TRUTH-IN-NEGOTIATION CERTIFICATE

Solicitation#_20210081_____

Pursuant to Section 287.055(5)(a), Florida Statutes, for any lump-sum or cost-plus-a-fixed fee professional services contract over the threshold amount provided in Section 287.017, Florida Statutes for CATEGORY FOUR, the City of Port St. Lucie, Florida requires the Consultant to execute this certificate and include it with the submittal of the Technical Proposal, or as prescribed in the contract advertisement.

The Consultant hereby certifies, covenants, and warrants that wage rates and other factual unit costs supporting the compensation for this project's agreement are accurate, complete, and current at the time of contracting.

The Consultant further agrees that the original agreement price and any additions thereto shall be adjusted to exclude any significant sums by which the City determines the agreement price was increased due to inaccurate, incomplete, or non-current wage rates and other factual unit costs. All such agreement adjustments shall be made within (1) year following the end of the contract. For purposes of this certificate, the end of the agreement shall be deemed to be the date of final billing or acceptance of the work by the City, whichever is later.

CHA Consulting, Inc.
Name of Firm

Michael A. Platt
President or Designee (Printed)

President or Designee (Signed)

The foregoing instrument was acknowledged before me by Michael A. Platt who is personally known to me. WITNESS my hand and official seal in the State of New York last aforesaid this 4th day of October, 2021.

NIKKI C. DAMES
NOTARY PUBLIC-STATE OF NEW YORK
No. 02DA6253381
Qualified in Schenectady County
My Commission Expires 12-27-2023

(SEAL)

Signature

Nikki C. Dames
Notary Name (typed or printed)

Notary Name (signed)

Page **1** of **1**

Attachment G - E-Verify Form

eRFP # 20210081

"A City for All Ages"

E-Verify Form
Attachment G - E-Verify Form

Supplier/Consultant acknowledges and agrees to the following:

1. Shall utilize the U.S. Department of Homeland Security's E-Verify system to verify the employment eligibility of all new employees hired by the Supplier/Consultant during the term of the contract; and

2. Shall expressly require any subcontractors performing work or providing services pursuant to the state contract to likewise utilize the U.S. Department of Homeland Security's E-Verify system to verify the employment eligibility of all new employees hired by the subcontractor during the contract term.

E-Verify Company Identification Number	130989
Date of Authorization	06/24/2008
Name of Contractor	CHA Consulting, Inc.
Name of Project	Southport 24-inch Force Main to Glades Booster Pump Station
Solicitation Number (If Applicable)	eRFP #20210081

I hereby declare under penalty of perjury that the foregoing is true and correct.

Executed on October, 4th, 20 21 in Albany (city), NY (state).

Signature of Authorized Officer

Michael A. Platt, General Counsel and Executive Vice President

Printed Name and Title of Authorized Officer or Agent

SUBSCRIBED AND SWORN BEFORE ME

ON THIS THE 4th DAY OF October, 20 21.

NOTARY PUBLIC

My Commission Expires: Nikki C. Dames

NIKKI C. DAMES
NOTARY PUBLIC-STATE OF NEW YORK
No. 02DA6253381
Qualified in Schenectady County
My Commission Expires 12-27-2023

Page 1 of 1

Attachment I - Drug Free Workplace Form

Attachment I - Drug Free Workplace Form

DRUG-FREE WORKPLACE FORM
eRFP # 20210081
Design of the Southport 24" Force Main to Glades Booster Pump Station

The undersigned Contractor in accordance with Florida Statute 287.087 hereby certifies that

CHA Consulting, Inc. does:
(Name of Business)

1. Publish a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the workplace and specifying the actions that will be taken against employees for violations of such prohibition.

2. Inform employees about the dangers of drug abuse in the workplace, the business's policy of maintaining a drug-free workplace, any available drug counseling, rehabilitation, and employee assistance programs, and the penalties that may be imposed upon employees for drug abuse violations.

3. Give each employee engaged in providing the commodities or contractual services that are under proposal a copy of the statement specified in subsection (1).

4. In the statement specified in subsection (1), notify the employees that, as a condition of working on the commodities or contractual services that are under proposal, the employee will abide by the terms of the statement and will notify the employer of any conviction of, or plea of guilty or nolo contendere to, any violation of Chapter 893 Florida Statutes or of any controlled substance law of the United States or any state, for a violation occurring in the workplace no later than five (5) days after such conviction.

5. Impose a sanction on, or require the satisfactory participation in a drug abuse assistance or rehabilitation program if such is available in the employee's community, by any employee who is so convicted.

6. Make a good faith effort to continue to maintain a drug-free workplace through implementation of this section.

As the person authorized to sign the statement, I certify that this firm complies fully with the above requirements.

Bidder's Signature

10/01/2021
Date:

Attachment D - PSL Location Form

"A City for All Ages"

SUPPLIER LOCATION CERTIFICATION

Attachment D - PSL Location Form

The undersigned, as a duly authorized representative of the Supplier listed herein, certifies to the best of their knowledge and belief, that the Supplier's location is correctly reflected based upon the below information. For purposes of this section, "Location" shall mean a business which:

a) How far is the Supplier's fixed office or distribution point located from City Hall; and

b) Is the principal offeror who is a single offeror; a business which is the prime contractor and not a subcontractor; or a partner or joint venturer submitting an offer in conjunction with other businesses.

Complete the following and upload this document and the Google Maps print out to the required sourcing platform:

Business Name: CHA Consulting, Inc.	
Current Local Address: 927 New Haven Avenue, Suite 206, Melbourne, FL 32901 Length of time at this address: 12 months	Phone: (321) 345-1760 Fax: N/A
Please provide your prior business address if the above address has been for less than one (1) year, prior to the issuance of this solicitation. 1900 S Harbor City Boulevard, Suite 328, Melbourne, FL 32901 Length of time at this address: 7 years	
Home Office Address: 575 Broadway, Suite 301, Albany, NY 12207 Length of time at this address: 7 years	Phone: (518) 453-4500 Fax: N/A

(Signed) _____

(Title) General Counsel and Executive Vice President

STATE OF ~~FLORIDA~~ NEW YORK }
COUNTY OF ~~ST. LUCIE~~ ALBANY } SS:

The foregoing instrument was acknowledged before me this *(Date)* 4th day of October, 2021

by: Michael A. Platt who is personally known to me or who has produced _____ as identification and who did (did not) take an oath.

NIKKI C. DAMES
NOTARY PUBLIC-STATE OF NEW YORK
No. 02DA6253381
Qualified in Schenectady County
My Commission Expires 12-27-2023

Notary (print & sign name)
Nikki C. Dames

Commission No. 02DA6253381

Page 1 of 1

eRFP # 20210081

Attachment E - Cone of Silence Form

Attachment E - Cone of Silence Form

"A City for All Ages"

NOTICE TO ALL PROPOSERS:

To ensure fair consideration is given for all Proposers, it must be clearly understood that upon release of the proposal and during the proposal process, firms and their employees of related companies as well as paid or unpaid personnel acting on their behalf shall not contact or participate in any type of contact with City employees, department heads or elected officials, up to and including the Mayor and City Council. The "Cone of Silence" is in effect for this solicitation from the date the solicitation is advertised on DemandStar, until the time an award decision has been approved by City Council and fully executed by all parties. Information about the Cone of Silence can be found under the City of Port St. Lucie Ordinance 20-15, Section 35.13. Contact with anyone other than the Issuing Officer may result in the vendor being disqualified. All contact must be coordinated through Mr. Jason Bezak, Issuing Officer, for the procurement of these services.

All questions regarding this Solicitation are to be submitted in writing to Jason Bezak, Procurement Agent I with the Procurement Management Department via e-mail JBezak@cityofpsl.com, or by phone 772-344-4068. Please reference the Solicitation number on all correspondence to the City.
All questions, comments and requests for clarification must reference the Solicitation number on all correspondence to the City. Any oral communications shall be considered unofficial and non-binding.

Only written responses to written communication shall be considered official and binding upon the City. The City reserves the right, at its sole discretion, to determine appropriate and adequate responses to the written comments, questions, and requests for clarification.

**NOTE: All addendums and/or any other correspondence before bid close date (general information, question and responses) to this solicitation will be made available exclusively through the DemandStar's Website for retrieval. All notice of intent to award documentation will be published on the City Clerk's Website. Proposers are solely responsible for frequently checking these websites for updates to this solicitation.*

I understand and shall fully comply with all requirements of City of Port. St. Lucie Ordinance 20-15, Section 35.13.

Typed Name: Michael A. Platt
Signed:
Company and Job Title: CHA Consulting, Inc. / General Counsel and Executive Vice President
Date: 10/01/2021

Cone of Silence and Solicitation Communication

1 of 1

eRFP # 20210081

"A City for All Ages"

eRFP #20210081
ATTACHMENT F - CONSULTANT'S CODE OF ETHICS

The City of Port St Lucie ("City), through its Procurement Management Department ("Procurement Management Department") is committed to a procurement process that fosters fair and open competition, is conducted under the highest ethical standards and enjoys the complete confidence of the public. To achieve these purposes, Procurement Management Department requires each vendor who seeks to do business with the City to subscribe to this Consultant's Code of Ethics.

- A Consultant's bid or proposal will be competitive, consistent and appropriate to the bid documents.
- A Consultant will not discuss or consult with other Vendors intending to bid on the same contract or similar City contract for the purpose of limiting competition. A Vendor will not make any attempt to induce any individual or entity to submit or not submit a bid or proposal.
- Consultant will not disclose the terms of its bids or proposal, directly or indirectly, to any other competing Vendor prior to the bid or proposal closing date.
- Consultant will completely perform any contract awarded to it at the contracted price pursuant to the terms set forth in the contract.
- Consultant will submit timely, accurate and appropriate invoices for goods and/or services actually performed under the contract.
- Consultant will not offer or give any gift, item or service of value, directly or indirectly, to a City employee, City official, employee family member or other vendor contracted by the City.
- Consultant will not cause, influence or attempt to cause or influence, any City employee or City Official, which might tend to impair his/her objectivity or independence of judgment; or to use, or attempt to use, his/her official position to secure any unwarranted privileges or advantages for that Vendor or for any other person.
- Consultant will disclose to the City any direct or indirect personal interests a City employee or City official holds as it relates to a Vendor contracted by the City.
- Consultant must comply with all applicable laws, codes or regulations of the countries, states and

Attachment F - Consultant's Code of Ethics | Page 2

localities in which they operate. This includes, but is not limited to, laws and regulations relating to environmental, occupational health and safety, and labor practices. In addition, Consultant must require their suppliers (including temporary labor agencies) to do the same. Consultant must conform their practices to any published standards for their industry. Compliance with laws, regulations and practices include, but are not limited to the following:

- Obtaining and maintaining all required environmental permits. Further, Consultant will endeavor to minimize natural resource consumption through conservation, recycling and substitution methods.
- Providing workers with a safe working environment, which includes identifying and evaluating workplace risks and establishing processes for which employee can report health and safety incidents, as well as providing adequate safety training.
- Providing workers with an environment free of discrimination, harassment and abuse, which includes establishing a written anti-discrimination and anti-bullying/harassment policy, as well as clearly noticed policies pertaining to forced labor, child labor, wage and hours, and freedom of association.

Name of Organization/Proposer CHA Consulting, Inc.

Signature

Printed Name and Title Michael A. Platt, General Counsel and Executive Vice President

Date 10/01/2021

DISCLAIMER: This Code of Ethics is intended as a reference and procedural guide to contractors. The information it contains should not be interpreted to supersede any law or regulation, nor does it supersede the applicable contractor contract. In the case of any discrepancies between it and the law, regulation(s) and/or contractor contract, the law, regulatory provision(s) and/or vendor contract shall prevail.

Attachment H - Non-Collusion Affidavit | Page 1

Attachment H - Non-Collusion Affidavit

"A City for All Ages"

NON-COLLUSION AFFIDAVIT

Solicitation # 20210081
Design of the Southport 24" Force Main to Glades Booster Pump Station

State of New York

County of Albany }

Michael A. Platt, being first duly sworn, disposes and says that:

(Name/s)

1. They are General Counsel and Executive Vice President of CHA Consulting, Inc. the Proposer that

(Title) (Name of Company)

has submitted the attached PROPOSAL;

2. He is fully informed respecting the preparation and contents of the attached proposal and of all pertinent circumstances respecting such PROPOSAL;

3. Such Proposal is genuine and is not a collusive or sham Proposal;

4. Neither the said Proposer nor any of its officers, partners, owners, agents, representatives, employees or parties in interest, including this affiant, has in any way colluded, conspired, connived or agreed, directly or indirectly with any other Proposer, firm or person to submit a collusive or sham Proposal in connection with the contract for which the attached proposal has been submitted or to refrain from proposing in connection with such Contract or has in any manner, directly or indirectly, sought by agreement or collusion or communication or conference with any other Proposer, firm or person to fix the price or prices in the attached Proposal or of any other Proposer, or to secure through any collusion, conspiracy, connivance or unlawful agreement any advantage against the City of Port St. Lucie or any person interested in the proposed Contract; and

5. The price or prices quoted in the attached Proposal are fair and proper and are not tainted by any collusion, conspiracy, connivance or unlawful agreement on the part of the Proposer or any of its agents, representatives, owners, employees, or parties in interest, including this affiant.

(Signed) _____

(Title) General Counsel and Executive Vice President

Page **1** of **2**

eRFP # 20210081

Attachment H - Non-Collusion Affidavit | Page 2

"A City for All Ages"

STATE OF ~~FLORIDA~~ NEW YORK }
COUNTY OF ~~ST. LUCIE~~ ALBANY } SS:

The foregoing instrument was acknowledged before me this *(Date)* 4th day of October, 2021

by: Michael A. Platt who is personally known to me or who has produced

_____ as identification and who did (did not) take an oath.

Commission No. 02DA6253381

Notary Print: Nikki C. Dames

Notary Signature: _____

NIKKI C. DAMES
NOTARY PUBLIC-STATE OF NEW YORK
No. 02DA6253381
Qualified in Schenectady County
My Commission Expires 12-27-2023

Contractor's Questionnaire | Page 1

"A City for All Ages"

CONTRACTOR'S QUESTIONNAIRE
eRFP # 20210081
Solicitation Name: Design of the Southport 24" Force Main to Glades Booster Pump Station

It is understood and agreed that the following information is to be used by the City of Port St. Lucie to determine the qualifications of Contractors to perform the work required. The Contractor waives any claim against the City that might arise with respect to any decision concerning the qualifications of the Consultant.

The undersigned attests to the truth and accuracy of all statements made on this questionnaire. Also, the undersigned hereby authorizes any public official, Consultant, surety, bank material or equipment manufacturer, or distributor, or any person, firm, or corporation to furnish the City of Port St. Lucie any pertinent information requested by the City deemed necessary to vary the information on this questionnaire.

1. **ORGANIZATIONAL PROFILE**- COMPANY NAME: CHA Consulting, Inc.

PHYSICAL ADDRESS: 927 New Haven Avenue, Suite 206, Melbourne, FL 32901

MAILING ADDRESS: 927 New Haven Avenue, Suite 206, Melbourne, FL 32901

TELEPHONE NUMBER: (321) 345-1760 FAX NO. N/A

CONTACT PERSON C. Robert Reiss, PhD, PE E-MAIL : creiss@chacompanies.com

Is the firm incorporated? (Yes) No If yes, in what state? Provide a list of officers for this entity.
State of New York | List of Officers: James Stephenson, President; Michael D. Carroll, Chief Executive Officer; Dom Bernardo, Chief Financial Officer and Executive President; Michael Platt, Secretary/Executive Vice President; Thomas D. Titsworth, Assistant Secretary

2. **COMPLETION OF FORM** - An authorized representative of the firm offering this Proposal must complete this form in its entirety. Terms entered herein shall not be subject to withdrawal or escalation by Contractor. The City reserves the right to hold proposals for a period not to exceed one hundred twenty (120) calendar days after the date of the proposal opening stated in the Invitation to Proposal before awarding the Contract. Contract award constitutes the date that City issues an executed Purchase Order.

3. **CONTRACT** - Contractor agrees to comply with all requirements stated in the specifications for this RFP.

4. **AGREEMENT** - Contractor agrees to comply with all requirements stated in the specifications for this RFP.

CERTIFICATION:

This RFP is submitted by: Name (print) Michael A. Platt who is an officer of the above firm duly authorized to sign proposals and enter into contracts. I certify that this solicitation

"A City for All Ages"

response is made without prior understanding, agreement, or connection with any corporation, firm, or person submitting a proposal for the same materials, supplies, or equipment, and is in all respects fair and without collusion or fraud.

The Contractor understands that information contained in this Solicitation Reply will be relied upon by City in awarding the proposed Contract and such information is warranted by the proposer to be true. The undersigned Contractor agrees to furnish such additional information, prior to acceptance of any solicitation relating to the qualifications of the proposer, as may be required by the City.

I certify that the information and responses provided on this Solicitation are true, accurate and complete. The City may contact any entity or reference listed in this Proposal. Each entity or reference may make any information concerning the Contractor available to the City.

I agree to abide by all conditions of this RFP:

Signature

General Counsel and Executive Vice President
Title

If a corporation renders this Proposal, the corporate seal attested by the secretary shall be affixed below. Any agent signing this Proposal shall attach to this form evidence of legal authority.

Witnesses:

Print name

Print name

If Individual:

Signature

Print Name

If Partnership:

Print Name of Firm

By: _____
(General Partner)

If Corporation:

CHA Consulting, Inc.
Print Name of Corporation

By: _____
(President)

Attest: _____
(Secretary)

November 17, 2021

Mr. Jason Bezak, CPPB, NIGP-CPP
Procurement Agent II
City of Port St. Lucie
121 SW Port St. Lucie Boulevard
Building A
Port St. Lucie, FL 34984

RE: Design of the Southport 24-inch Force Main to Glades Booster Pump Station; eRFP #20210081

Dear Mr. Bezak and Selection Committee Members:

Please find our team's responses to the City's questions provided below:

1. Describe your experience with recent engineering design projects for large diameter piping where CMAR was used. With regards to CMAR projects, CHA and its Florida staff have significant experience with CMAR, including an ongoing $17 million, 44,000-foot pipeline project for the City of Orange City; an ongoing $12 million booster pump station for Tampa Bay Water; accelerated delivery of $50 million in water system improvements for Seminole County; a booster pump station and pipeline for Toho Water Authority/City of St. Cloud; and numerous others. We have staff that are Design-Build Institute of America (DBIA) certified and have a long history with alternative delivery projects.

Our experience with CMAR has been positive, with the benefit of the CMAR Contractor providing input regarding constructability and sequence of construction in advance of 100% drawings. In addition, we have had the ability to accelerate schedules using CMAR. For this project, the interface of the pipeline as it passes the Westport Watewater Treatment Facility (WWTF) and the operational protocols for flow control peak and off-peak times will be critical. Having the CMAR (and their integrator) confirm/comment on the control architecture and maintenance of operations in advance of the 100% plans will be particularly helpful.

While the Southport Backbone 24-inch Force Main project was not a CMAR project for the City of Port St. Lucie, CAPTEC/CHA employed many of the same principles and practices in the design process. Multiple contractors were consulted throughout the design process to review and provide input on everything from alternate routes to potential lay-down areas and pipe material alternatives to horizontal directional drill (HDD) areas to minimize conflicts and reduce restoration costs. Felix Associates of Florida, Inc. (Felix Associates) was one of the contractors that provided valuable insight and material selection input that greatly reduced the cost of the project construction. For example, Diamond-Loc and/or Certa-Loc PVC pipe was suggested to eliminate the cost of ductile iron joint restraint fittings. Several of the contractors also provided ballpark unit prices for the various construction materials and pay items which provided for informed design process decisions.

For this project, we see a conventional CMAR procurement process as best suiting the City's needs, with a qualifications-based submittal, recommendation of a contractor and negotiation of terms and conditions. Robert Reiss will serve as our CMAR lead on your behalf. He will support you in the same role for the CMAR process beginning next month for the Westport WWTF Improvements project.

2. Describe your experience with recent engineering design projects where you used open cut for pipe installation in residential neighborhoods. The South Seminole & North Orange County Wastewater Transmission Authority (SSNOCWTA) recently replaced approximately 20,000 feet of C200 PVC pipeline within its transmission area in central Florida, including South Seminole County and the cities of Casselberry, Maitland and Winter Park. The pipeline replacement took place primarily in residential and commercial areas.

In areas where open-cut was anticipated in residential neighborhoods, CHA developed design documents that instructed the Contractor to follow specific guidelines, including but not limited to notifying residents when construction approached

their homes, no open pits at the end of the day, noise and dust mitigation control, and other measures. In addition, during the construction, CHA's inspector was available to receive calls and address concerns raised by the residents. In one instance, CHA's project manager was in direct contact with a resident who had recently had a baby, and when construction was near her home, it would scare her dog, who would bark and wake the baby. Construction could not be stopped, but the communication was maintained with the resident to ensure everything that was possible was done until the construction passed the area of the resident.

CAPTEC recently replaced the water mains in the High Point, TOSP coastal community. The old water mains were located in the back-of-lot areas filled with vegetation and fences. The proposed lines were to be placed in the road rights of way (ROWs) in front of homes. This is a 120-lot subdivision with waterfront homes and an approximate 13-foot difference in relief. The project entailed working with a plumbing contractor to replace lines on the private properties and address potable and irrigation water. The second contract was with the underground contractor that installed lines by open-cut and directional drilling. The project enhanced the fire protection in the neighborhood and provided restoration of both public and private properties. This project replaced all water mains in a project serviced by septic tanks. Florida Power & Light (FPL), AT&T and Comcast lines were accommodated.

The City's Southport Backbone 24-inch Force Main project was also installed by open-cut methods through residential neighborhoods with minimal disturbance. The community hotline services provided by CAPTEC were a distinct advantage to quickly resolve residents' concerns caused by the construction activities. Residents' calls were logged, team personnel were quickly dispatched to meet each caller onsite and issue resolution was prioritized and expedited to resolve each concern to minimize resident inconvenience. (Please refer to our response to Question #4 below for additional information regarding the community hotline services.) Another example is that one of the existing 6-inch, low-pressure force main replacement pipes that runs along Morningside Boulevard was changed from open-cut to HDD installation in the field to minimize front-yard disturbance and restoration costs. The HDD option also reduced the required construction time for this project task.

The same Captec CEI team for the Southport Backbone 24-inch Force Main project will serve in similar roles for this project.

3. What would you suggest for pipeline construction to offset the increase in pipe costs through the end of 2022? The current economic environment has caused the cost of raw materials to rise significantly. While future costs are unknown, CHA has a dedicated cost estimating team for utility projects and predicts a further 10% increase in material costs between now and one year from now, with escalations dampening in the years thereafter.

With respect to more recent escalations and the current cost of materials, Felix Associates reports that 24-inch PVC force main (C-905 DR25) Diamond LOK-21 pipe has increased from $98 per installed linear foor for the Southport Backbone project in 2019 to over $260 per installed linerar foot today. Similarly, 24-inch Fusible PVC force main (DR25) by HDD has increased from $305 per installed linear foot for the Southport Backbone project in 2019 to over $460 per installed linear foot.

One potential option to reduce material costs is for the City to direct-purchase the pipe materials to avoid paying sales tax, commonly known as, "owner-furnished materials" and to lock in prices before further anticipated escalations. The cost savings may save sales tax and any unknown mark-up percentage included in the contractor bids for storage and handling of the materials. We have significant experience with owner-furnished materials and are happy to discuss the pros and cons of this option further.

An additional method to manage costs includes evaluating trends in cost differences between material types and installation methods. For example, just last month, on an 18,000-foot, 20-inch FPVC potable water pipeline project for the City of Melbourne, CHA and the City agreed with the Contractor to a change in material to HDPE for certain portions of the project to minimize costs.

1016 Spring Villas Point, Winter Springs, FL 32708
T 407.679.5358 • www.chacompanies.com

Another possible alternative to add significant benefit to the City while providing cost-sharing opportunities between City departments would be to combine the Southport Force Main Utility Services Department project with a Public Works Department project for the canal portion of the route, taking advantage of a complete canal rehabilitation/restoration project simultaneously with the pipeline project. Sharing costs while creating a benefit for multiple departments is a win-win for the City of Port St. Lucie.

4. How would you handle construction engineering services for this project? The CHA team will provide construction engineering services to help oversee the construction phase of the project and verify the Contractor follows all of the design plans and documents. The team will oversee the Contractor's work to verify proper construction techniques, materials, equipment, and personnel are employed throughout the duration of the project and monitor the Contractor's progress and compliance with the contract documents.

CAPTEC will serve as the lead for construction engineering services, with CHA providing engineer-of-record (EOR) related services. CAPTEC will use the same team and same construction delivery methods as used for the City's recent Southport Backbone 24-inch Force Main project.

Some of the tasks that the CHA team will provide will include:

- Shop drawing review – verify the Contractor installs material per the design specification
- Request for information (RFI) – provide clarification of the design documents to the Contractor
- Review pay applications – review that quantity estimates on pay applications match what has been installed
- Monthly construction meetings – monthly meetings with all parties, including the owner, engineer and Contractor
- Site inspection – provide a dedicated site inspector to oversee the Contractor as construction occurs
- Public relations – provide the community hotline to allow residents to contact the parties directly related to the construction and obtain answers to their questions
- Construction revisions – update construction drawings for the Contractor based on field conditions that might be discovered during construction and may require an alternate design

Several of the lessons learned from past CEI projects highlight the importance of frequent communication between the City, the Contractor and the residents living in the project area. Communication with the City and the Contractor is enhanced with scheduled weekly construction progress meetings with meeting minutes to document action items and confirm that tasks are completed in a timely manner to avoid extra work and change orders. Communication with city residents is accomplished during community information meetings before construction, by distributing information flyers/door hangers during construction. The door hangers include the community hotline telephone number that is answered by CAPTEC construction support personnel to maintain a log of residents' complaints and issues, enable tracking of resolution and/or completion of each issue.

On future projects, we found it is extremely important to routinely monitor the proposed utility route, especially within a two-week window before installation. On the Southport Backbone 24-inch Force Main project, CAPTEC encountered several gopher tortoises that had dug burrows within 25 feet of the proposed route centerline. Field conditions can change between design and construction. Knowing in advance would have allowed a better, smoother adjustment in the proposed alignment, possibly eliminating fittings and providing additional cost savings.

Keeping detailed field records of the types and numbers of fittings used within the field, along with careful record maintenance by the inspector, avoids additional quantity checks and verifications for final pay records. Detailed field records shared with the Contractor also expedite surveyor as-builts.

Requiring frequent submission of testing results allows the engineer to verify that all portions of the line have an adequate number of densities based on the depth of install.

Maintenance of detailed photo documentation and continuous measurements of pipe (conflict) crossings saves time during as-built review to verify minimum FDEP clearances are maintained and provides assurance checks for the information provided in the as-builts.

Another opportunity for efficiency is to always review future proposed work routes to determine whether the alignment can be shifted or if fittings can be eliminated, which also helps reduce costs.

Reviewing adjacent properties for proposed development and potentially adding connections at the time of the force main pipeline install can avoid interruption of the main during later connections. (Installing a cut-in tee during construction rather than a tapping sleeve later).

The CEI team also provides extensive reviews of the Contractor's as-built drawings and requires corrections to be addressed before submission to the City. Typically, the City has no additional comments once our as-builts are submitted to them for review.

Our CEI team routinely talks to the design project managers during design and plans development about better construction methods to eliminate items that have constructability issues.

Maintaining good records of current and future work, including careful review of notices provided by the Contractor of any additional work or time delays, protects the City from unexpected cost increases. For several prior projects, the CEI team maintained detailed records throughout the course of the project. At the completion of the project, the Contractor submitted multiple additional work claims for time and monies. The CEI team was able to show that most of the Contractor's claims for additional monies and time were unjustified. The result ended with the municipality assessing liquated damages for time spent beyond approved contract time, totaling over $95,000, which was used to offset additional CEI time spent monitoring the Contractor's delinquent work.

5. What is your plan on tackling the easements and right-of-way acquisition issue? a) Have you identified the locations where this will be a consideration? Most lines will be installed in existing ROW and easements. It is our intention to coordinate with all the property owners where additional easements may be needed in the beginning and all efforts will avoid additional property/easement acquisition. In the remote chance that easements are needed, all survey work will be completed with our high-qualified surveyor, Betsy Lindsay, Inc. (Betsy Lindsay), who prepared the City's base maps and has survey control throughout the City of Port St. Lucie.

The City has included a pipeline corridor route review/evaluation in the proposed scope in this RFP. CHA has previously completed the hydraulic analyses/route selection options technical memorandum to support this project when it was conceived in 2019/2020. Three preliminary pipeline alignments were identified in conjunction with Department staff. These initial layouts maximized the use of canals through the area, which would require coordination with the City of Port St. Lucie for a ROW permit, but not necessarily any ROW acquisition. Furthermore, these initial alignments did not require the acquisition of easements. We understand additional route discussions have been had by the Utilities Department, including connection to the existing pipeline running north from the Rangeline facility to the Glades booster pump station. With our history of evaluating the hydraulics and routes with the City, we feel we are in the best position to support a rapid conclusion to route selection and the associated hydraulic, easement and ROW considerations.

6. Why would the proposals only include 30 days for permitting on a large corridor? What kinds of impediments could arise to extend that date and how would the firm deal with them? The CHA design team has worked on many pipeline projects and completed a wide variety of permit requirements. Before the CHA team arrives at the permitting phase, it anticipates having already coordinated with the permitting agencies to determine their requirements for the pipeline design. Knowing the permitting agencies' requirements will allow the design to have these requirements already incorporated and shown.

In addition, communication with permitting agencies starts early in the design, so each agency knows that they will be receiving a permit application for a specific project.

Communication with the permitting agencies could also help accelerate the review period. For example, CHA recently completed a pipleine project that included over 9,000 feet and over 30 plan and profile sheets. When it came time to obtain the FDEP permit, prior coordination with FDEP allowed CHA to submit one overall exhibit showing the 9,000 feet on one 11x17 sheet, versus submitting 30 plan and profile sheets.

The permits expected for this project include:

- FDOT - I-95 permits - Our team has directional-drilled new open-cut lines of 12 to 36-inch size in FDOT ROW.
- City of Port St. Lucie - We have experience in obtaining City permits, specifically in City roadway and canal ROWs.
- Community development district (CDD) properties permits - throughout the Southern Groves and Western Groves/ Tradition area, the community has lands that are owned and maintained by various CDDs and property owners associations. Our team has worked with all these entities in securing permits.
- The City of Port St. Lucie Public Works ROW - our team has experience and has developed many of the master stormwater systems within the City of Port St. Lucie. We are ready to secure permits to use ditch canal and lake areas for the installation of these proposed force mains.
- South Florida Water Management District (SFWMD) - our team is familiar with obtaining ROW permits in SFWMD canal ROWs, as well as dewatering permits to install all pipes for this project.
- USACE/FDEP permits - it is our recommendation to avoid any permits necessary for wetland impacts due to the extended time of securing a permit that is occurring currently from the USACE-FDEP regulators. This is the critical potential impediment to the permitting schedule that we see for this project. The other identified permitting needs are shorter duration and more predictable.

Our plan is to hold pre-application conferences with all permit regulators and secure permits while the plans are being developed in the 30% stage of the project.

7. What is the assumed rate of installation? What kinds of impediments could arise to extend that duration and how the firm deal with them? The assumed rate of pipeline installation is dependent on various factors, but primarily where the installation is along green space (e.g., along a canal) or in an congested area (e.g., commercial or residential area). In green space, a skilled pipeline contractor may install upwards of 150 to 200 feet of pipe. In more congested areas, it would average closer to 100-feet-per day.

Any project that involves a pipeline carries with it the concern of the unknown and what is below ground. Unlike vertical construction, pipelines are buried and the area in which the pipeline is installed could involve any number of potential concerns, including other utilities, unsuitable soils, above-ground obstacles, and more. Existing utilities will be identified and unknown subsurface conditions will be mitigated by robust survey and subsurface utility exploration (SUE) as part of the design, with additional field verification requirements early on with the CMAR's construction activities.

Impediments to completion of the construction could happen in the dewatering process if not permitted in the design phase of the project. Knowledge of the Port St. Lucie Utilities (PSLU) required shop drawings is important to avoid delays in ordering materials. Given the current problems in the world supply chain, the CEI team must work daily with the Contractor and subcontractors to know when and where items are ordered and how they will get to the site in a timely manner. All complaints must be documented and resolved in a timely manner; this is where a hotline is time well spent to note problems and when proper documentation is needed. During the construction of the project, the CEI team must require all as-built/testing results are completed monthly to avoid future problems. The CEI team needs to look ahead of the construction to resolve problems from the environment and the neighborhoods on a weekly basis. The restoration of adjacent properties must be noted and completed in a timely manner to confirm proper completion.

8. Can you discuss the biggest project you are currently involved in with the City of PSL? Give a shorty summary and explain whether you are within time and budget? Why or why not? etc. CHA's largest project with the City is the improvements to the Westport WWTF. This project originally consisted of process improvements as one bid package and a capacity expansion in a second bid package. The design of the process improvements bid package was completed by CHA, on-schedule. The construction was completed late but successfully, despite severe construction contractor challenges. With respect to the design, it has resolved long-standing operational challenges at the facility. City-requested increases in field inspection support resulted in increased fees to CHA. No additional fees for design were requested or required.

The design of the second bid package, to expand the facility, was completed on-schedule. Governor Desantis' administration directed FDEP to modify/update the St. Lucie River Basin Management Action Plan (BMAP), among others, to include new nutrient limits, published in January 2020 while the City was bidding the expansion. This regulatory change has resulted in a delay and a modified plan to meet the capacity needs of the City and the new nutrient reduction requirements.

CHA is currently tasked with updating the facility design to address nutrient reduction. The updated schedule for the WWTF bid package meets the regulatory deadline. CHA supported the City with the hydraulic assessment of this proposed Southport to Glades pipeline project, to divert flow to the Glades WWTF. We understand the importance of this, the pipeline project and the absolute need to meet the regulatory deadline. With respect to fees, CHA has received an amended fee for the additional work resulting from the BMAP regulatory change.

We look forward to the opportunity to assist you in continuing to provide your customers with an exceptional level of service. We look forward to working with the City of Port St. Lucie. Our team of highly trained engineers and specialists has the technology, resources and expertise needed to design high-quality infrastructure solutions that last. If you have any questions, please feel free to contact me at (407) 789-0403 or creiss@chacompanies.com.

Sincerely,

C. Robert Reiss, PhD, PE
Principal-in-Charge/Florida Water Project Team Leader

1016 Spring Villas Point, Winter Springs, FL 32708
T 407.679.5358 • www.chacompanies.com