

1

Connected to expanded effluent pump station at WRF

Expansion of effluent structure at #1 to occur

2

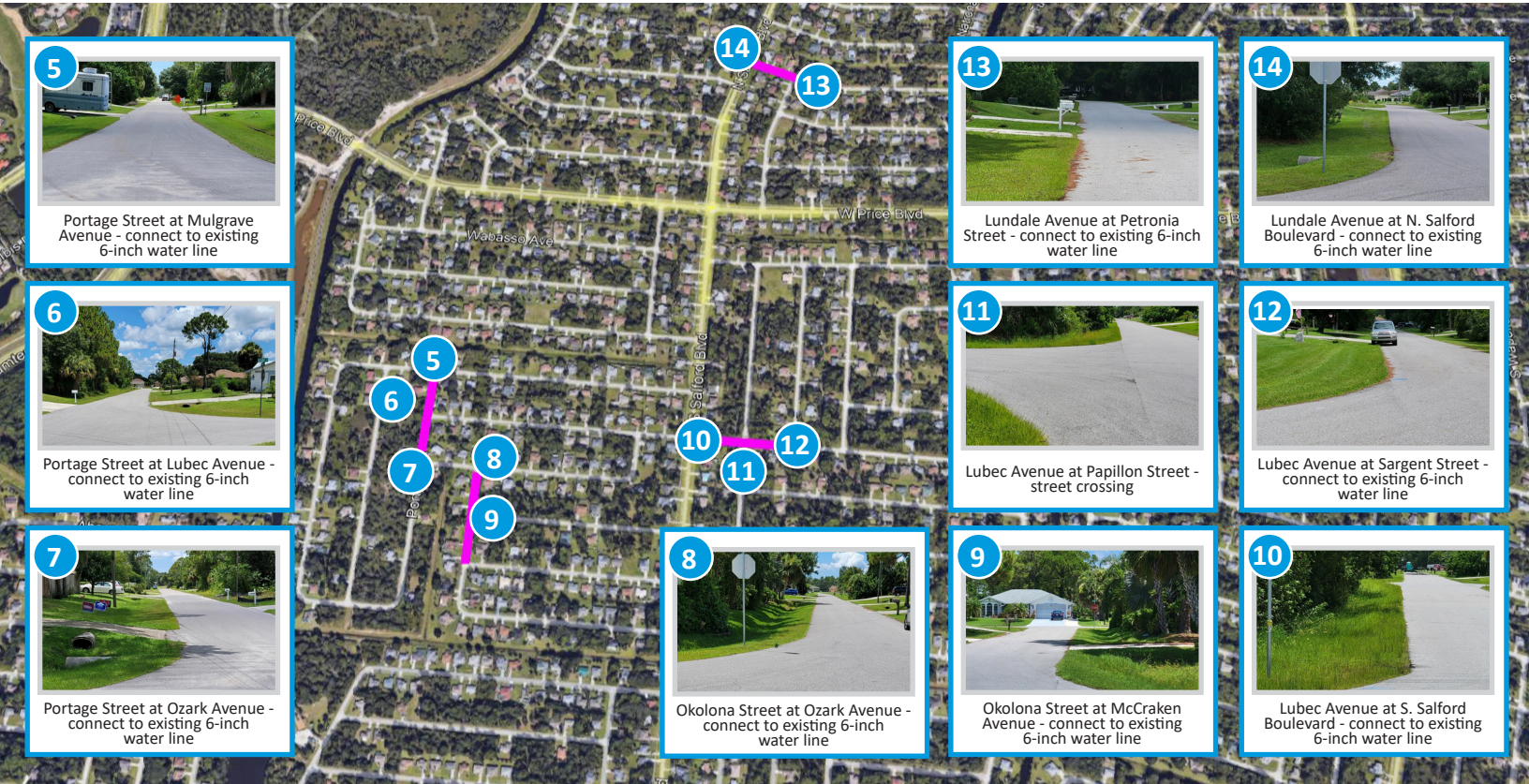
HDD crossing of Myakkahatchee Creek at South Biscayne Drive

3

Consider restoration costs compared to trenchless installation

4

Connect to existing deep injection well (DIW)



5

Portage Street at Mulgrave Avenue - connect to existing 6-inch water line

13

Lundale Avenue at Petronia Street - connect to existing 6-inch water line

14

Lundale Avenue at N. Salford Boulevard - connect to existing 6-inch water line

6

Portage Street at Lubec Avenue - connect to existing 6-inch water line

11

Lubec Avenue at Papillon Street - street crossing

12

Lubec Avenue at Sargent Street - connect to existing 6-inch water line

7

Portage Street at Ozark Avenue - connect to existing 6-inch water line

8

Okolona Street at Ozark Avenue - connect to existing 6-inch water line

9

Okolona Street at McCracken Avenue - connect to existing 6-inch water line

10

Lubec Avenue at S. Salford Boulevard - connect to existing 6-inch water line

CITY OF NORTH PORT

Water Reclamation Facility Effluent Chamber and Pumping System Expansion; RLI 2023-04

Prepared for: Michael Acosta, PE, Engineering Manager
 City of North Port Utilities Department
 6644 W. Price Boulevard, North Port, FL 34291
Due: September 9, 2022 | 2:00pm



RE: Water Reclamation Facility Effluent Chamber and Pumping System Expansion; RLI 2023-04

Dear Mr. Acosta and Selection Committee Members:

Thank you for giving CHA this opportunity to provide professional engineering services to expand the effluent chamber and pumping station to dispose of reclaimed wastewater and reverse osmosis (RO) concentrate at the two deep injection wells (DIWs). Because this project has been offered to all engineering consultants that reside in the Contract No. 2020-58, Category 1 library, we presume North Port Utilities (NPU) deems all consultants capable of executing this project satisfactorily. Therefore, the question becomes "why choose CHA?" The answer is simple. We are presenting a highly qualified senior team of engineers who have designed many wastewater treatment facilities across the state of Florida. Below, you will find our response to the requested material, including three reference projects that demonstrate the breadth and depth of our wastewater treatment facility expertise.

WHY CHA?

- ✓ **Highly experienced staff** | Over 155 years of combined, applied water reclamation facility (WRF) design experience dedicated to this project
- ✓ **Local Florida experience** | Team members have extensive Florida experience
- ✓ **Specific Florida regulatory knowledge** | The CHA team has strong relationships with FDEP staff
- ✓ **Client service manager has extensive public sector experience** | Bart understands NPU's issues, concerns, and expectations

**UNDERSTANDING OF THE PROJECT AND REQUIRED DELIVERABLES**

The primary means of effluent disposal from the WRF is through an Underground Injection Control Class I DIW system comprised of three effluent pumps with a capacity of 1,500 gallons per minute (gpm), each equipped with 100 HP motors. There are two wells at the disposal site in Port Charlotte. The maximum permitted injection rate for IW-1 is 3,690 gpm with a maximum injection volume of 5.32 MGD. The maximum injection rate for IW-2 is 9,166 gpm with a maximum injection volume of 13.2 MGD. Currently, the effluent from the WRF and the WTP RO concentrate to the DIWs is delivered through a 16-inch diameter pipe. NPU has determined that the capacity of the effluent disposal system must be increased to meet future demands. While the effluent delivery pipeline system will be designed and constructed pursuant to RLI 2023-03, the additional pumping system must be modeled to adequately size the new pumps and motors. A technical memorandum will be developed to summarize the findings. Since the effluent chamber is located at the operational WRF, maintenance of operation for the construction of the expansion to the effluent chamber and pumping system will be a significant consideration for the design of the new infrastructure.

1. Project Management and Coordination

- a. Kick-off meeting
- b. Progress meetings/minutes
- c. Data request
- d. General project management/coordination

2. Design and Permitting

- a. Survey/SUE and geotechnical investigations
- b. Hydraulic modeling and technical memo to support effluent chamber and pumping system sizing
- c. 60% design documents and review meeting
- d. 90% design documents and review meeting
- e. 100% design documents
- f. Permitting
- g. Up to two responses from FDEP for additional information during permitting

3. Bid-phase Services

- a. Bid form
- b. Pre-bid meeting/minutes
- c. Issue addenda, if necessary
- d. Bid review and recommendation of award
- e. Prepare conformed documents

4. Construction-phase Services

- a. Pre-construction meeting/minutes
- b. Review shop drawings
- c. Respond to requests for information (RFIs)
- d. Prepare change orders, if required
- e. Provide limited construction oversight
- f. Monthly construction meetings/minutes
- g. Pay application review
- h. Substantial and final completion inspections
- i. Certification of construction completion
- j. Prepare and submit record drawings
- k. Project closeout

**ABILITY AND RELEVANT EXPERTISE/QUALIFICATIONS OF THE FIRM'S PERSONNEL**

Having provided engineering services to municipal governments for more than 70 years and holding more than 50 continuing general service agreements with Florida clients, we recognize the pressure municipal officials confront, including project budgets and schedules. We will work collaboratively with NPU staff as a true partner. CHA has sufficient staff, equipment, and systems available to meet or exceed NPU's expectations with our deliverables. We have outlined our team members and their qualifications below for your consideration.



Allen Dethloff, PE | Project Manager | Allen offers a wide range of experience in civil engineering, process mechanical engineering, permitting, and construction management. He brings 20 years of experience in preliminary design, final design, permitting, bidding, construction administration, and managing multidisciplinary engineering teams for pipelines (including various trenchless technologies), sanitary sewer collection systems, pumping stations, water and wastewater facility improvements, chemical feed systems, and stormwater management projects.



James Hagerty, PE | Lead Design Engineer | Jim is a civil and environmental engineer with 37 years of experience and a successful track record in facility planning and executing strategic plans, projects, and programs for wastewater, water, and stormwater utilities. Jim offers specialized wastewater treatment expertise, responsible for developing and optimizing process designs for advanced biological treatment systems, sludge processing, and effluent disposal systems. He has used his unit process and operations experience to develop facility expansion plans, construction plans, value engineering analyses, and technical reviews. His wastewater process design experience includes advanced treatment, effluent filtration, anaerobic and aerobic digestion systems, sludge pelletizing systems, lime treatment, and sludge dewatering.



Parsa Pezeshk, PhD, PE | Hydraulic Modeling | Parsa has over six years of experience in the environmental engineering field working primarily on hydraulic and wastewater treatment process modeling. He recently worked on the City of Clearwater's Reclaimed Water Service Evaluation where he was responsible for hydraulic modeling and evaluating the reclaimed water system with the overall goal of reducing surface water discharge through increasing public access reclaimed water disposal.



J. Richard Voorhees, PE, BCEE | QA/QC | Rich has 46 years of experience and is highly qualified in the planning, design, construction, start-up, and operation of water and wastewater treatment and pumping facilities. He is a Board-certified Environmental Engineer (BCEE) and is recognized in Florida as a technology leader in water and wastewater treatment, especially biological nutrient removal for wastewater treatment and enhanced lime softening for water treatment. Rich has been the project or design manager to design and construct multi-million dollar water and wastewater facility projects. He also has previous experience as a general contractor for water and wastewater facility construction.



Kerry Wulff | Lead Construction Inspector | Kerry has over 33 years of experience serving as a resident project representative (RPR) and construction manager for utility projects ranging from pipeline installations to constructing complex water/wastewater treatment facilities, including design-build projects up to \$100 million in cost. He specializes in the analysis, design, and layout of water and wastewater treatment facilities, collection systems, distribution systems, and associated infrastructure. Kerry is familiar with requirements related to alternative/governmental funding protocols (state revolving fund [SRF], cooperative funding and permitting processes). He is also a certified building contractor and is OSHA 30-hour certified.

AVAILABILITY OF STAFF AND ABILITY TO MEET PROJECT SCHEDULE

CHA staff have substantial availability and will be allocated to the city, as necessary, to complete the project promptly and efficiently. We have assembled a focused team of local CHA professionals with direct, relevant experience and a project leadership team familiar with the city's utility system. You can be confident that the assigned staff's efforts will be sufficiently allocated to accomplish the project on schedule and within budget. CHA provides similar services to other governmental agencies throughout the state of Florida. Our track record demonstrates that we have successfully provided high-quality services and products to these municipalities, as we intend to provide to the city of North Port. Our proposed key personnel are available to undertake this assignment successfully. Current and projected workloads are analyzed weekly at CHA to allocate resources appropriately. As projects are initiated, the appropriate technical and support resources necessary to perform each task are allocated to meet or exceed all project requirements. The current staff utilization is generally in the range of 50-55%, leaving an uncommitted staff effort of between 45% and 50%, based on today's workload. Having provided engineering services to municipal governments for more than 70 years, CHA recognizes the pressures municipal officials confront, including budgets and project schedules. We will work collaboratively with the city as a true partner to have sufficient staff, equipment and systems available to meet or exceed your expectations with our deliverables. With a bench strength of over 1,400 professionals, we do not foresee any issues meeting deadlines.

Team Member	Role	Availability
Allen Dethloff, PE	Project Manager	45%
Jim Hagerty, PE	Lead Design Engineer	55%
Parsa Pezeshk, PhD, PE	Hydraulic Modeling	60%
Rich Voorhees, PE, BCEE	QA/QC	40%
Kerry Wulff	Lead Construction Inspector	60%

PROPOSED SUBCONSULTANTS

ECHO UES, Inc. | Surveying and mapping/SUE - 4803 George Road, Suite 350, Tampa, FL 33634
Tierra Consultants, Inc. | Geotechnical engineering - 7351 Temple Terrace Highway, Tampa, FL 33637
Wekiva Engineering, LLC | Structural engineering - 711 N Orange Avenue, Suite A, Winter Park, FL 32789

PROPOSED COST-SAVINGS MEASURES

This project is closely aligned with the reclaimed pipeline capacity expansion, and modeling is necessary to size the new pumps and motors properly. **NPU could reduce the costs of this project by combining it with the pipeline capacity expansion project pursuant to RLI 2023-03.**

PROPOSED SCHEDULE

		2022		2023												2024											
		O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A			
Project management and coordination	10/17/22 to 8/1/24	[Red bar spanning from Oct 2022 to Aug 2024]																									
Design	10/17/22 to 4/17/23	[Red bar spanning from Oct 2022 to Apr 2023]																									
Permitting	2/20/23 to 4/17/23													[Red bar spanning from Feb to Apr 2023]													
Bid-phase services	5/1/23 to 5/31/23													[Red bar spanning from May 2023]													
Construction-phase services	8/1/23 to 8/1/24													[Red bar spanning from Aug 2023 to Aug 2024]													

SIMILAR PROJECTS AND REFERENCES

The CHA team offers demonstrated successful project experience assisting Florida clients with similar projects, as demonstrated below:

SWRF Influent Pump Station (IPS) Expansion and Upgrades *Orange County Utilities, FL | 07/2016 - Ongoing*

Orange County's SWRF advanced secondary facility's existing IPS was constructed in 2001, and the pumps were nearing the end of their expected life. The county wanted to explore the potential to provide expanded capacity within the structure of the existing IPS. CHA developed a preliminary engineering report to confirm this potential use. CHA was contracted to provide the design, bidding, and construction services to expand the SWRF influent pumping capacity to meet the Phase V peak flow needs with six pumps installed and make provisions for future maximum plant peak flow needs of 216 MGD. The new IPS has dual, self-cleaning wet wells and space for up to eight 31 MGD pumps. The pumps and motors in the existing IPS will remain in service until the new IPS becomes operational. This project includes the construction of a new IPS with new submersible pumps, piping, valves, electrical, and controls. Raw wastewater enters the facility through several pipelines and enters the existing IPS where all of the wastewater is screened. Screened wastewater flows into a dual-chamber wet well, and pumps that are located in a dry pit pump the wastewater to the preliminary treatment structure for grit removal before flowing by gravity through the treatment train. The IPS has four existing pumps of 20 MGD capacity each, with the capability to add two additional pumps. The existing pumps are near the end of their equipment life and will be replaced with new capacity under this project. It was determined the two existing discharge mains have sufficient capacity and will be expanded later if necessary. Phase V of the project will include replacing the influent screens, and additional screen capacity will be added in the future.



Client Reference: Orange County Utilities; Mark Ikeler, PE, Chief Engineer; 407.254.9705; markc.ikeler@ocfl.net

Reclaimed Water GST and Pump Station *City of Haines City, FL | 05/2019 - Ongoing*

To maximize the beneficial use of the reclaimed water system and eliminate algae, debris and wildlife contamination from the percolation/storage pond, the City of Haines City needed to modify the existing reclaimed distribution pump system to prevent the need to re-treat water that is currently stored in an on-site pond. Poor reclaimed water quality caused two of the City's largest reclaimed water customers to discontinue their use. This project is being performed to improve the quality of the City's reclaimed water and restore customer confidence and use. A new transfer pump station will divert water from the chlorine contact chamber and deliver the water to the new prestressed concrete GST. The new high-service pump station will draw from the new GST for the public access reclaimed system. The City engaged CHA to provide the preliminary design, hydraulic analysis, final design, permitting, and construction administration services for the construction of a 7.8 MGD transfer pump station with VFDs and a concrete wet well, a 3 MG prestressed concrete GST, a new 4.5 MGD reclaimed high service pump station with VFDs, an off-site 1.1 MGD booster pump station, yard piping, electrical, instrumentation and controls, and ancillary structures at the Haines City WWTF. Once the treated effluent is discharged to the pond, the overall water quality is reduced and requires additional treatment before pumping the water to the distribution system. The new GST and reclaimed distribution pump station will allow the City to store high-quality reclaimed water without discharging it to the existing percolation storage pond. As part of this project, CHA assisted the City in obtaining 75% cost-share funding from the Southwest Florida Water Management District (SWFWMD). CHA provided the drawings, permits and preliminary design report (PDR), and prepared the grant application forms.



Client Reference: City of Haines City; James Keene, Public Infrastructure Director; 863.421.9951 ext. 5954; JKeene@hainescity.com

Delwood Super Station Design-Build *Hillsborough County, FL | 08/2015 - 06/2018*

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 long-term operation and maintenance costs. 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 allowed the upstream lift stations to continue operating 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 due to our innovative design approach, in addition to the reduced noise nuisance to the surrounding neighborhood for depth and duration of dewatering during construction.**



Client Reference: Hillsborough County; George Cassidy, Assistant County Administrator; 813.272.5977 ext. 43307; cassadyg@hillsboroughcounty.org

Sincerely,

C. Robert Reiss, PhD, PE
Vice President/Project Team Leader

Barton Jones, PE
Client Service Manager

CONFLICT OF INTEREST FORM

F.S. §112.313 places limitations on public officers (including advisory board members) and employees' ability to contract with the City either directly or indirectly. Therefore, please indicate if the following applies:

PART I.

- I am an employee, public officer or advisory board member of the City
_____ (List Position or Board)
- I am the spouse or child of an employee, public officer or advisory board member of the City
Name: _____
- An employee, public officer or advisory board member of the City, or their spouse or child, is an officer, partner, director, or proprietor of Respondent or has a material interest in Respondent. "Material interest" means direct or indirect ownership of more than 5 percent of the total assets or capital stock of any business entity. For the purposes of [§112.313], indirect ownership does not include ownership by a spouse or minor child.
Name: _____
- Respondent employs or contracts with an employee, public officer or advisory board member of the City
Name: _____
- None of The Above

PART II:

Are you going to request an advisory board member waiver?

- I will request an advisory board member waiver under §112.313(12)
- I will NOT request an advisory board member waiver under §112.313(12)
- N/A

The City shall review any relationships which may be prohibited under the Florida Ethics Code and will disqualify any vendors whose conflicts are not waived or exempt.

BUSINESS NAME: CHA Consulting, Inc.

NAME(PERSON AUTHORIZED TO BIND COMPANY): John Hensley

SIGNATURE: _____


THIS PAGE MUST BE SUBMITTED WITH LETTER OF INTEREST

DISCLOSURE FORM FOR CONSULTANT/ENGINEER/ARCHITECT

Please select only one of the following three options:

Print Form

Clear All Fields

Our firm has no actual, potential, or reasonably perceived, **financial*** or **other interest**** in the outcome of the project.

Our firm has a potential or reasonably perceived **financial*** or **other interest**** in the outcome of the project as described here:

_____.

Our firm proposes to mitigate the potential or perceived conflict according to the following plan:

Our firm has an actual **financial*** or **other interest**** in the outcome of the project as described here:

_____.

*What does "financial interest" mean?


If your firm, or employee(s) of your firm working on the project (or a member of the employee's household), will/may be perceived to receive or lose private income depending on the government business choices based on your firm's findings and recommendations, this must be listed as a financial interest. An example would be ownership in physical assets affected by the government business choices related to this project. The possibility of contracting for further consulting services is not included in this definition and is not prohibited.

**What does "other interest" mean?

If your firm, or employee(s) of your firm working on the project (or a member of the employee's household), will/may be perceived to have political, legal or any other interests that will affect what goes into your firm's findings and recommendations, or will be/may be perceived to be affected by the government business choices related to this project, this must be listed as other interest.

BUSINESS NAME: CHA Consulting, Inc.

NAME (PERSON AUTHORIZED TO BIND THE COMPANY): John Hensley

SIGNATURE:  **DATE:** 8/16/2022

Scrutinized Company Certification Form

Company Name: CHA Consulting, Inc.

Authorized Representative Name and Title: John Hensley, Executive Vice President

Address: III Winners Circle, PO Box 5269 City: Albany State: NY ZIP: 12205-0269

Phone Number: (518) 453-4500 Email Address: jhensley@chacompanies.com

A company is ineligible to, and may not, bid on, submit a proposal for, or enter into or renew a contract with the City of North Port for goods or services of any amount if, at the time of bidding on, submitting a proposal for, or entering into or renewing such contract, the company is on the Scrutinized Companies that Boycott Israel List, created pursuant to Florida Statutes, section 215.4725, or is engaged in a boycott of Israel.

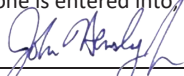
A company is ineligible to, and may not, bid on, submit a proposal for, or enter into or renew a contract with the City of North Port for goods or services of \$1 million or more if, at the time of bidding on, submitting a proposal for, or entering into or renewing such contract, the company is on the Scrutinized Companies with Activities in Sudan List, the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List, created pursuant to Florida Statutes, section 215.473, or with companies engaged in business operations in Cuba or Syria.

CHOOSE ONE OF THE FOLLOWING

- This bid, proposal, contract or contract renewal is for goods or services of less than \$1 million. As the person authorized to sign on behalf of the above-named company, and as required by Florida Statutes, section 287.135(5), I hereby certify that the above-named company is not participating in a boycott of Israel.

- This bid, proposal, contract or contract renewal is for goods or services of \$1 million or more. As the person authorized to sign on behalf of the above-named company, and as required by Florida Statutes, section 287.135(5), I hereby certify that the above-named company is not participating in a boycott of Israel, is not on the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List, and it does not have business operations in Cuba or Syria.

I understand that pursuant to Florida Statutes, section 287.135, the submission of a false certification may result in the termination of the contract if one is entered into, and may subject the above-named company to civil penalties, attorney's fees and costs.

Certified By: 
AUTHORIZED REPRESENTATIVE SIGNATURE

Print Name and Title: John Hensley, Executive Vice President

Date Certified: 8/16/2022

Solicitation/Contract/PO Number (Completed by Purchasing): _____

VENDOR'S CERTIFICATION FOR E-VERIFY SYSTEM

The undersigned Vendor/Consultant/Contractor (Vendor), certifies the following:

1. Vendor is a person or entity that has entered into or is attempting to enter into a contract with the City of North Port (City) to provide labor, supplies, or services to the City in exchange for salary, wages or other remuneration.
2. Vendor has registered with and will use the E-Verify System of the United States Department of Homeland Security to verify the employment eligibility of:
 - a. All persons newly hired by the Vendor to perform employment duties within Florida during the term of the contract; and
 - b. All persons, including subcontractors or subconsultants, assigned by the Vendor to perform work pursuant to the contract with the City.
3. If the Vendor becomes the successful Contractor who enters into a contract with the City, then the Vendor will comply with the requirements of Section 448.095, Fla. Stat. "Employment Eligibility", as amended from time to time.
4. Vendor will obtain an affidavit from all subcontractors attesting that the subcontractor does not employ, contract with, or subcontract with, an unauthorized alien as defined in 8 United States Code, Section 1324A(H)(3).
5. Vendor will maintain the original affidavit of all subcontractors for the duration of the contract.
6. Vendor affirms that failure to comply with the state law requirements can result in the City's termination of the contract and other penalties as provided by law.
7. Vendor understands that pursuant to Florida Statutes, section 448.095, the submission of a false certification may result in the termination of the contract if one is entered into, and may subject the Vendor named in this certification to civil penalties, attorney's fees and costs.

VENDOR: CHA Consulting, Inc. (Vendor's Company Name)

Certified By: 
AUTHORIZED REPRESENTATIVE SIGNATURE

Print Name and Title: John Hensley, Executive Vice President

Date Certified: 8/16/2022