



October 3, 2023

James Keene
City of Haines City
620 East Main Street
Haines City, FL 33844

**Re: City of Haines City
Upper Floridan aquifer (UFA) Wells Engineering Services – Phase 1
Scope of Services**

Dear Mr. Keene:

CHA Consulting, Inc. (CHA) and subconsultant, RESPEC Company, LLC (RESPEC) are pleased to provide this proposal for engineering services for Upper Floridan Aquifer (UFA) Wells Engineering Services – Phase 1, which involves the development of technical specifications for the construction of two new Upper Florida Aquifer (UFA) wells to replace two existing wells (District ID Nos. 8 and 9). This scope includes bid package preparation and well drilling contractor selection assistance.

There will ultimately be two additional phases to the project, which are not included in this scope. Phase 2 will involve the well construction implementation, which would occur once a well contractor is selected, and the Water Use Permit modification has been authorized by Southwest Florida Water Management District. Phase 3 will involve the development of design documents, permitting and bidding for the surface facilities including wellhead assembly, pumps, transmission lines, valving, electrical, instrumentation and controls connecting the new wells to the City's water system.

Please review the enclosed scope and fee proposal at your earliest convenience and provide us with any comments you may have so that we can make any revisions that are necessary.

We look forward to working cooperatively with the City on this important assignment.

Regards,

CHA CONSULTING, INC.

A handwritten signature in blue ink that reads "Allen W. Dethloff".

Allen Dethloff, P.E.
Project Team Leader

cc: Mario F. Chavez, P.E., CHA

CITY OF HAINES CITY
**UPPER FLORIDAN AQUIFER (UFA) WELLS
ENGINEERING SERVICES – PHASE 1**

**SCOPE OF ENGINEERING SERVICES
CHA CONSULTING, INC**

SEPTEMBER 2023

A. PROJECT INTENT

The City of Haines City (City) holds a Water Use Permit with the Southwest Florida Water Management District (SWFWMD) that identifies two (2) additional Upper Floridan aquifer (UFA) production wells to replace District ID Nos. 8 and 9. The two (2) replacement UFA production wells (District ID Nos. 10 and 11) are currently proposed to be located approximately 1 mile north and 1.4 miles west of District ID Nos. 8 and 9 on property currently owned by Nola/ER Jahna, as shown in Exhibit A.

CHA Consulting, Inc. (CHA) in conjunction with its subconsultant, RESPEC Company, LLC (RESPEC), will provide engineering services described in the following section to design, permit, construct and test the two (2) proposed UFA production wells. The UFA well engineering services are proposed to be completed in up to three (3) phases.

Phase 1 involves the development of well construction and testing technical specifications for the well Contractor along with Contractor bid package preparation and well drilling contractor selection assistance. At this point of the project, details of the well construction (size, depth, schedule, etc.) will be better defined, which will allow for development of the Phase 2 scope, which will consist of the following: well construction and testing oversight; documentation of well construction and testing activities; evaluation of hydrogeologic and water quality data, and development of a well construction and testing summary report.

Phase 3 is a future phase and will include the development of design documents, permitting, bidding, and construction administration for the surface facilities including wellhead assembly, pumps, transmission lines, valving, electrical, instrumentation and controls.

B. SCOPE OF ENGINEERING SERVICES

Specific services to be provided are as follows. **TASK 1 – PROJECT ADMINISTRATION**

1.1 – Project Administration

CHA will perform general project coordination and management activities, including general administrative activities for this project, as well as specific coordination activities with the team



members, including the City staff. Specific duties under this task include contract administration, budget management, invoicing, project scheduling, and coordination with City staff. Invoices will include the percent completion for each task to advise and highlight the overall progress of the task, as well as identify completed, on-going, and pending activities.

1.2 – Project Meetings

CHA will prepare for and attend a kickoff meeting with the City to establish roles, communication protocols, gather available data, and develop a clear and mutual understanding of the scope elements and performance requirements for the Project. The kickoff meeting will also identify additional data required and specific deliverables and deadlines for the Project.

CHA will prepare for and attend up to (2) two meetings with the City to review progress of the project and project schedule. The Engineer will prepare and submit meeting summaries of the progress meetings, as necessary.

- **Task 1 Deliverables**

1. Kickoff meeting agenda and summary
2. Progress meeting agenda and summaries

TASK 2 – DEVELOPMENT OF WELL CONSTRUCTION AND TESTING SPECIFICATIONS

CHA will develop technical specifications for the City to use to procure the services of a qualified Licensed Water Well Drilling Contractor (Contractor) to construct and test two (2) UFA Production Wells. The proposed wells are to be located northwest of the current locations of District ID Nos. 8 and 9. The proposed wells are anticipated to be designated as District ID Nos. 10 and 11 once they have been authorized by the SWFWMD (as part of the ongoing Water Use Permit modification).

The technical specifications are anticipated to include well construction and pilot-hole drilling specifications, lithologic sampling descriptions including both cuttings and coring, water level data collection, geophysical logging and packer testing. The technical specifications are also anticipated to include an 8-hour Step-Drawdown testing (SDT) for both wells and a 3-day Constant-Rate Test (CRT) utilizing both production wells (pumping and observation well) to determine Transmissivity (T) and Storativity (S) values. Groundwater quality sampling and analysis are also expected to be included in the form of drill-stem water quality analysis during reverse-air pilot hole drilling and laboratory analysis during packer testing and Aquifer Performance Testing. Elevated concentrations of sulfate and hydrogen sulfide are a concern in the area, therefore careful consideration as to casing set depth and the total depth of the well are critical.

CHA will work closely with the City to develop the technical specifications for the well construction and testing of both UFA production wells.

- **Task 2 Deliverables**

1. Draft technical specifications for UFA Production Well Construction and Testing
2. One TEAMS or In-Person meeting to review Draft Technical Specifications with City staff
3. Final technical specifications for UFA Production Well Construction and Testing

TASK 3 – DEVELOPMENT OF WELL CONSTRUCTION AND TESTING PLAN

The SWFWMD may require a Well Construction and Testing Plan (WCTP) to be submitted and approved by District staff prior to commencing well construction. It is anticipated that the two (2) UFA production wells (District ID Nos. 10 and 11) will be successfully authorized by the District under City’s Water Use Permit (WUP). However, the District may request that a WCTP is submitted prior to well construction. Therefore, CHA will develop and submit WCTP to the SWFWMD to authorize the construction and testing of the UFA production wells. CHA will coordinate and communicate with District staff as necessary to receive approval of the Aquifer Test Plan and WCTP.

- **Task 3 Deliverables**

1. DRAFT Well Construction and Testing Plan (WCTP) for the City to review.
2. TEAMS or In-Person Meetings to review Draft WCTP (up to two meetings).
3. FINAL WCTP for Submittal to SWFWMD.
4. Coordination with SWFWMD staff to facilitate expedited approval of WCTP.

TASK 4 – ASSISTANCE WITH WELL CONTRACTOR SELECTION

Well Drilling Contractor Selection Assistance will be provided for this project. Services to be provided by CHA include:

4.1 – Assistance in Bid Package Preparation

CHA will assist the City in advertising for and obtaining bids by providing specifications, including a Proposal Bid Form with the Technical Specifications to the City to issue bid packages. CHA will provide one electronic copy to the City. The City will be responsible for all front-end documents and preparing and publishing the final bid package to prospective Contractors and any direct communication with the prospective Contractors.

4.2 – Opinion of Probable Construction Cost

Prior to bid advertisement, CHA shall prepare a Class 2 opinion of probable construction cost (OPCC). A summary of the assumptions used in developing the OPCC shall be provided.

4.3 – Pre-Bid Meeting

CHA will attend up to two Pre-Bid Meeting if requested by the City. In the event of meeting attendance, CHA will prepare a meeting agenda, issue meeting minutes summarizing topics of

discussion, and respond to significant bidder questions by providing written response to the City for inclusion in a formal addendum.

4.4 – Technical Issues

CHA will assist the City in coordinating all communications with bidders on matters related to the technical aspects of the project. All correspondence on these matters will be sent to the City, and response(s) to bidders will be via City-issued addenda.

4.5 – Addenda

CHA will assist the City in responding to requests for clarification during the bidding period and prepare addenda, if required, based upon the questions of prospective bidders and the need to clarify the intent of the Contract Document. Response(s) to bidders will be via City-issued addenda. Sufficient budget has been included for CHA to provide technical content for up to two (2) addenda.

4.6 – Bid Review

Upon City request, CHA will review the bids received by the City for accuracy and technical responsiveness and prepare a Bid Tabulation. CHA will review the Bid Documents in consultation with the City of the apparent low bidder including payment and performance bond information, insurance information, and references. CHA shall advise City as to the acceptability of low bidder, subcontractors, suppliers and other persons and organizations proposed by the Contractor for those portions of the work as to which such acceptability is required by the bidding documents. Based upon the above, CHA will issue a Recommendation of Award letter to the City. It is understood that the City will review the apparent low bidder's submittal with respect to legal and administrative content.

- **Task 4 Deliverables**

1. Opinion of Probable Construction Cost (Class 2)
2. Attend up to two (2) on-site Pre-Bid meetings with City and prospective bidders,
3. Draft addenda based on bidder questions (up to two addenda, as needed)
4. Bid tabulation and one (1) Teams meeting with City to discuss tabulation results.
5. Recommendation of Award Letter (if requested)

C. SCHEDULE

The work effort described herein will be completed within 6 months in accordance with the proposed schedule provided in the table below.

The schedule for the accomplishment of the Project reflects the proposed deadlines for completion of the design, permitting, and bidding services for the Project is shown in the following table.

Description	Days to Complete	Estimated Completion (Days from NTP)
Task 1 – Project Administration	180	180
Task 2 – Development of Well Construction and Testing Specifications	60	60
Task 3 – Development of Well Construction and Testing Plan	60	120
Task 4 – Assistance with Well Contractor Selection	60	180

D. COMPENSATION

For the Scope of Services described herein CHA shall be compensated on a lump sum fee of **\$93,118**. Invoices will be submitted monthly based upon the percent completion of the overall scope of work, as determined by CHA. A cost break down is provided below.

Description	Fee
Task 1 – Project Administration	\$18,725
Task 2 – Development of Well Construction and Testing specifications	\$35,685
Task 3 – Development of Well Construction and Testing Plan	\$17,555
Task 4 – Assistance with Well Contractor Selection	\$21,460
TOTAL	\$93,425

E. ASSUMPTIONS

1. Services not specifically identified within this Scope are not included in this Agreement. However, additional services can be provided via amendment if deemed necessary by the City.
2. This Scope was written prior to WUP authorization from SWFWMD to construct District ID Nos. 10 and 11. This scope of services assumes the successful authorization of District ID Nos, 10 and 11 on the City’s Water Use Permit.
3. The City shall facilitate access to the site and provide any relevant project information.
4. The site must be clear of obstacles impeding access to any portion of the project limits.

F. SERVICES NOT INCLUDED

The following services are not included in this scope of work, and may be performed under a separate task authorization, if needed:

- Well Construction Permit (To be secured by Well Drilling Contractor)
- Laboratory services and costs for water quality analysis
- Geophysical logging
- Groundwater flow modeling
- Surveying or Engineering
- Water Level Transducers

APPROVAL:

OWNER
CITY OF HAINES CITY

CONSULTANT
CHA CONSULTING, INC.



Allen Dethloff, PE
Project Manager

DATE: _____

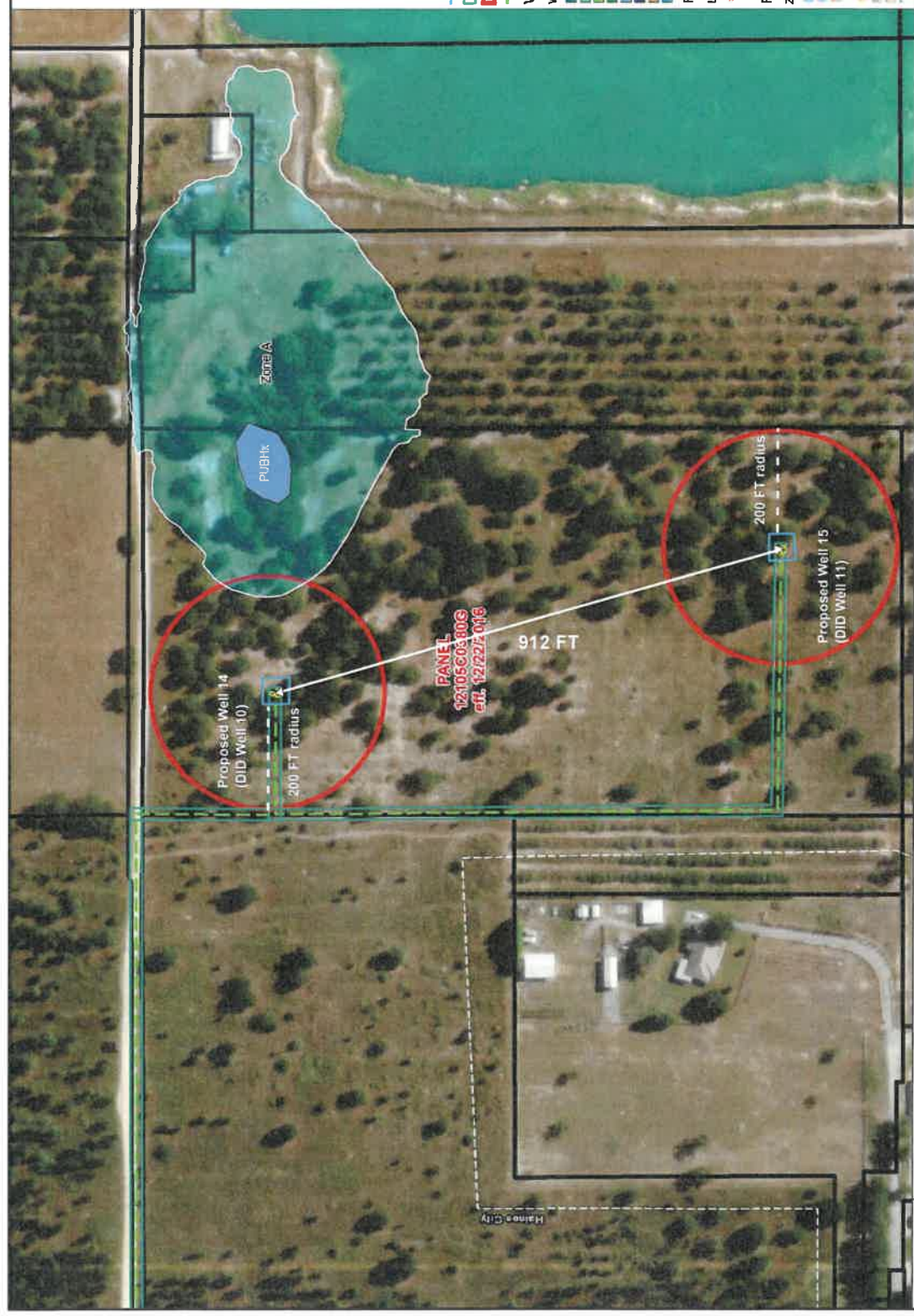
DATE: October 3, 2023



EXHIBIT A
WELL RELOCATION SITE



2



LEGEND

- Proposed Wells
 - 45 x 45 Fence Enclosure
 - 20 ft Utility Easement
 - 200 ft Buffer
 - Proposed_TM
- #### Wetlands
- Estuarine and Marine Deepwater
 - Estuarine and Marine Wetland
 - Freshwater Emergent Wetland
 - Freshwater Forested/Shrub Wetland
 - Freshwater Pond
 - Lake
 - Other
 - Riverine
- #### Flood Hazard Boundaries
- #### Line Type
- Limit Line
 - SPHA / Flood Zone Boundary
- #### Flood Hazard Zones
- #### Zone Type
- 1% Annual Chance Flood Hazard
 - Regulatory Floodway
 - Special Floodway
 - Area of Undetermined Flood Hazard
 - 0.2% Annual Chance Flood Hazard
 - Future Conditions 1% Annual Chance Flood Hazard
 - Area with Reduced Risk Due to Levee
 - Area with Risk Due to Levee

CITY OF HAINES CITY
UPPER FLORIDAN AQUIFER WELL EVALUATION
PROPOSED WELLS 14/15 (DID Wells 10/11)

EXHIBIT A

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