PROJECT AGREEMENT

Between

THE CITY OF SUNRISE

And

STANTEC CONSULTING SERVICES INC.

For

Project Agreement Number: PA-23-028-SC

SPRINGTREE WTP RAW WATER SUPPLY WELLS IMPROVEMENTS DESIGN, PERMITTING AND BIDDING

Pursuant to the provisions contained in the Continuing Services Agreement between the City of Sunrise ("City") and Stantec Consulting Services Inc. ("Consultant") for Professional Services – Water, Wastewater, Wastewater Reuse and Natural Gas Utilities Projects (hereinafter referred to as "Continuing Services Agreement") dated <u>May 7, 2021</u>, this Project Agreement (hereinafter referred to as "Agreement") authorizes the Consultant to provide the services as set forth below:

SECTION 1 INCORPORATION OF CONTINUING SERVICES AGREEMENT

1.1 All terms and conditions of the Continuing Services Agreement between the City and the Consultant dated <u>May 7, 2021</u>, not specifically modified by this Agreement shall remain in full force and effect and are incorporated into and made a part of this Agreement by this reference as though set forth in full.

SECTION 2 CONSULTANT'S BASIC DUTIES TO CITY

- 2.1 By executing this Agreement, the Consultant represents to the City that the Consultant is professionally qualified to act as the Consultant for the Project (hereinafter referred to as "the Project") and is licensed to practice engineering by all public entities having jurisdiction over the Consultant and the Project. The Consultant further represents to the City that the Consultant will maintain all necessary licenses, or other authorizations necessary to act as Consultant for the Project until Consultant's duties hereunder have been completed. The Consultant shall be responsible for providing all necessary subconsultants required for the successful completion of the work as outlined in EXHIBIT "1," Scope of Services. The Consultant assumes full responsibility to the City for the improper acts, negligence, and omissions of its subconsultants and of all others employed or retained by the Consultant in connection with the Project.
- 2.2 Execution of this Agreement by the Consultant constitutes a representation that the Consultant has become familiar with the Project site and the local conditions under which the Project is to be implemented.

2.3 THIRTY PERCENT DESIGN DOCUMENTS

- 2.3.1 The Consultant shall review and examine the information, including any desired schedule and budgetary requirements, furnished by the City to understand the requirements of the Project and shall review its understanding of such requirements with the City.
- 2.3.2 The Consultant shall furnish to the City a preliminary written evaluation of such information in light of any Project budget requirements.
- 2.3.3 The Consultant shall review and discuss with the City any alternative approaches to design and construction of the Project.
- 2.3.4 The Consultant shall prepare and submit to the City for its review 30% design documents consisting of drawings and other documents illustrating the scale and relationship of proposed Project components. The Consultant shall be responsible for furnishing a legal description and any necessary survey(s) of the site, including, as may be reasonably required, grades and lines of streets, alleys, pavements and adjoining structures, rights-of-way, restrictions, easements, encroachments, zoning, deed restrictions, boundaries and contours of the site; locations, dimensions and necessary data pertaining to existing buildings and other improvements; and information concerning available service and utility lines above and below grade, including inverts and depths.
- 2.3.5 The Consultant shall submit to the City an estimate of probable construction costs for the Project.
- 2.3.6 If requested by the City, during construction, the Consultant shall be required to maintain for the City a record of deviations on the basis of information compiled and furnished, in part, by others, from the work as shown in the drawings and specifications and as actually installed. Before final payment by the City, the Consultant shall revise any drawings and specifications affected by such deviation so that all such documents shall show the work actually installed. A digital drawing or approved equal of the final certified record drawings shall be submitted to the City.
- 2.4 SIXTY PERCENT DESIGN DOCUMENTS- NOT USED
- 2.5 NINETY PERCENT DESIGN DOCUMENTS
- 2.5.1 Based on the 30% design documents and any adjustments to that design, the proposed schedule, or Project budget authorized by the City, the Consultant shall prepare and submit to the City for its review, 90% design documents consisting of drawings and other documents to fix and describe the size and character of the Project as to civil, architectural, structural, mechanical and electrical systems; landscape architectural and irrigation design; materials and such other elements as may be appropriate.
- 2.5.2 The Consultant shall review its estimate of probable construction costs, shall make any appropriate revisions thereto and furnish same to the City.
- 2.5.3 The Consultant shall assist the City in preparing and filing all documents necessary to obtain the approval of all authorities having jurisdiction over the Project.
- 2.6 ONE HUNDRED PERCENT DOCUMENTS

- 2.6.1 Based on the 90% design documents and any adjustments to that design, the proposed schedule, or Project budget authorized by the City, the Consultant shall prepare 100% design documents consisting of drawings and specifications setting forth in detail the requirements for construction of the Project. Such Construction Documents shall be project specific and shall be accurate, coordinated and adequate for construction, and shall be in conformity and comply with all applicable law, codes, standards, and regulations. Products specified for use shall be readily available unless specifically authorized by the City.
- 2.6.2 The Consultant shall continue to assist the City in preparing and filing all documents necessary to obtain the approval of all authorities having jurisdiction over the Project.
- 2.6.3 The Consultant shall review its most recent estimate of probable construction costs, shall make any appropriate revisions thereto and furnish same to the City.
- 2.6.4 The Consultant shall be responsible for the preparation of bid packages to be made available for distribution to all prospective bidders via the City's electronic procurement system. Such packages shall include electronic copies of all relevant plans, specifications, and other documents upon which the bidding is to be based. All electronic documents shall be provided in an Americans with Disabilities Act (ADA) compliant format (except for plans, only the descriptive list will be provided in this format). The City reserves the right to elect paper copies if deemed necessary and, if elected, the Consultant shall make copies of complete bid packages available at its office nearest to the Project site during normal business hours for all prospective bidders. The Consultant shall be reimbursed by the City for the actual cost of reproduction of the documents contained within the bid package as a reimbursable item pursuant to the terms of Section 6.2 of this Agreement.
- 2.6.5 In the event that there are amendments to the bid packages, amendments to any of the documents contained with the bid packages, or any clarifications issued during the bidding process, the Consultant shall prepare for the City's approval written addenda as appropriate to interpret, clarify or expand the bidding documents. The Consultant shall make such documents available to all prospective bidders in a manner acceptable to the City, and shall be reimbursed for the actual costs of reproduction at the same rate specified in Section 2.6.4. There shall be no additional charges for amendments or clarifications other than as provided in Section 2.6.4.
- 2.6.5 The Consultant shall coordinate with the City during the bidding process and be available to address bidders' questions and comments at any time during the bidding process. The Consultant shall attend the pre-bid meeting, which will be held at a location as specified by the City.
- 2.6.6 The Consultant shall be available as necessary to assist the City in the evaluation of all bids received for determination of compliance with the bidding requirements. The Consultant shall not be responsible for performing any investigations or reference checks regarding bidders, nor shall it be responsible for determining whether a bid is responsive or a bidder is responsible; however, the Consultant shall assist the City as necessary in making such determination.
- 2.6.7 The Consultant will investigate, study, and analyze any proposed substitutions of materials or equipment and shall advise the City with respect to same.

2.7 ADMINISTRATION OF CONSTRUCTION – **NOT USED**

2.8 ADDITIONAL SERVICES

The following services of the Consultant are not included in Sections 2.3 through 2.6, nor in EXHIBIT "1," Scope of Services. Nevertheless, the Consultant shall provide such services as related to the Project if authorized in writing by the City prior to the performance or furnishing of same, and, unless otherwise specified in this Agreement, said services shall be paid for by the City as provided hereinafter.

- 2.8.1 Providing services to perform an extraordinary examination or investigation of existing conditions or to make measured drawings, or to verify the accuracy or other information provided by the City.
- 2.8.2 Making revisions in drawings, specifications or other documents when such revisions are inconsistent with written direction by the City previously given, are required by the enactment or revision of codes, laws or regulations subsequent to the preparation of such documents and not reasonably anticipated, or are due to other causes not within the control or responsibility of the Consultant, either in whole or in part.
- 2.8.3 Preparing drawings, specifications and supporting data in connection with Change Orders, provided that such Change Orders are issued by the City due to causes not within the control or responsibility of the Consultant, either in whole or in part.
- 2.8.4 Providing services concerning repair or replacement of work damaged by fire or other cause during construction provided that such services are required by causes not the responsibility of the Consultant, either in whole or in part.
- 2.8.5 Providing services made necessary solely by the default of the Contractor or defects or deficiencies in the work of the Contractor.
- 2.9 SERVICE SCHEDULE
- 2.9.1 The Consultant shall perform its services in accordance with agreed upon schedule. The Consultant shall submit for the City's approval a schedule for the performance for the Consultant's services that shall include allowance for time required for the City's review of submissions and for approvals of authorities have jurisdiction over the Project. The City shall review and approve or reject any schedules submitted by the Consultant within five (5) working days of said submittal. If, in the event that construction of the Project is suspended for more than thirty (30) days, the Consultant shall also suspend Construction Administration Services upon request of City. Any time spent on the Project at the request of the City or on the City's behalf during this suspension shall be additional services and shall be paid based on the Standard Hourly Rates attached to the Continuing Services Agreement as EXHIBIT "B" Hourly Rates. The reasonable term of construction upon which the fees for Construction Administration Services in this Agreement are based, shall be extended to include the period of construction suspension. This schedule, when approved by the City, shall not, except for cause, be exceeded by the Consultant. In the event the City rejects any schedules submitted by the Consultant, the Consultant shall submit a revised schedule within forty-eight (48) hours of said rejection. Submission of a

schedule acceptable to the City and to which the City makes no objection shall be a condition precedent for any payment to the Consultant.

- 2.9.2 Upon receipt of the Notification of Commencement and the fully executed Purchase Order, the Consultant shall commence services to the City on the Commencement Date, and shall continuously perform services to the City, without interruption, in accordance with the time frames set forth in the "Project Schedule," a copy of which is attached and incorporated into this Agreement as EXHIBIT "2." The number of calendar days from the Commencement Date, through the date set forth in the Project Schedule for completion of the Project or the date of actual completion of the Project, which ever shall last occur, shall constitute the Contract Time.
- 2.9.3 Liquidated Damages: The parties recognize and agree that certain events may cause the City to suffer losses that are by their nature uncertain, difficult to prove, and not ascertainable at the time this Agreement is entered into. The parties agree that certain breaches will cause Consultant to pay City liquidated damages resulting from the breach. In no event shall these liquidated damages be construed or deemed to constitute penalties. Unless otherwise excused by the City in writing, in the event that the Consultant fails to meet the Contract Time for completion of a particular milestone of service(s) as determined by the Project Schedule, the Consultant shall pay to the City the sum of dollars identified below per day for each and every calendar day of unexcused delay beyond the milestone completion date(s) identified below, until completion of the milestone:

Milestone 1: Project Task 5 - 90% (Permit Ready Plans) \$100/day

- 2.9.4 No Damages for Delay: The Consultant shall not be entitled to any claim for damages including, but not limited to, loss of profits, loss of use, home office overhead expenses, equipment rental and similar costs on account of delays in the progress of the Project from any cause or national disaster or emergency, unusual delay in deliveries, unusual delay in procuring permits, differing site conditions, unavoidable casualties or other cause beyond the Consultant's control, or by delay authorized by the City, or by other causes which the Consultant determines may justify delay. The Consultant's sole recovery and remedy for any such delay shall be a reasonable extension of time and a revision to the Project Schedule as determined by the City. However, additional costs to the Consultant or delays in the Consultant's performance caused by improperly timed activities shall not be the basis for granting a time extension. If the Consultant wishes to make a claim for an increase in time of performance, written notice of such claim shall be made to the City within three (3) working days after the occurrence of the event, or the first appearance of the condition giving rise to such claim. The City's representative shall determine whether the Consultant is entitled to a time extension for the delay. The failure of the Consultant to give such notice shall constitute a waiver of any claim under this section.
- 2.9.5 Notwithstanding the provisions of Subparagraph 2.9.4, in the event that the Contractor fails to substantially complete the Project on or before the Substantial Completion date specified in the Construction Contract or the Contractor is granted an extension of the time to complete performance under the Construction Contract and the Consultant's Contract Administration Services are materially extended by the City as a direct result thereof and through no fault of the Consultant, the Consultant shall be entitled to additional compensation at the rates shown in the Continuing Services Agreement EXHIBIT "B." The

amount of compensation due by the Consultant under this Subparagraph shall be pursuant to approved written Amendment to this Agreement.

- 2.10 PERSONNEL
- 2.10.1 The Consultant shall assign only qualified personnel to perform any service concerning the Project. At the time of execution of this Agreement, the parties anticipate that the following named individuals will perform those supervisory or primary functions indicated:

NAME	FUNCTION
Zuhal Ozturk, Ph.D., P.E.	Project Manager
Oscar Bello, P.E.	Engineer of Record
Isabel Perez-Rios	Project Engineer
Rick Cowles, P.G.	Principal Hydrogeologist
Neil Johnson, P.G.	Senior Principal
Nycole Sharma, P.G.	Associate Hydrogeologist
Michael Laterza	Sr. CAD Technician
Laura Rodriguez	Administrative Assistant

So long as the individuals named above remain actively employed or retained by the Consultant, they shall perform the functions indicated next to their names. Furthermore, the City reserves the right to reject any proposed substitution for any of the above named individuals, and the City shall have the further right to require that any individual assigned to the Project by the Consultant be removed from the Project and reassigned for good cause.

SECTION 3 CITY'S BASIC DUTIES TO CONSULTANT

- 3.1 The City shall provide the Consultant with adequate information regarding the City's requirements for the Project including any desired or required design or construction schedule, or both, and any budgetary requirements including fixed limit of construction cost, prior to the start of the Construction Documents Phase of design, upon which the Consultant shall be entitled to rely.
- 3.2 The City shall review any documents submitted by the Consultant requiring the City's decision, and shall render any required decision pertaining thereto in a timely fashion.
- 3.3 The City shall furnish structural, mechanical, chemical and other laboratory tests, inspections and reports as required by law or the Construction Contract.
- 3.4 If the City becomes aware of any fault or defect in the Project, nonconformance with the Construction Contract, or of any errors, omissions or inconsistencies in the drawings or specifications, prompt notice thereof shall be given by the City to the Consultant.
- 3.5 The City shall perform those duties set forth in Sections 3.1 through 3.4 as expeditiously as may reasonably be necessary for the orderly progress of the Consultant's services and of the work.

3.6 The City's review of any documents prepared by the Consultant or its subconsultants shall be solely for the purpose of determining whether such documents are generally consistent with the City's construction program and intent. No review of such documents shall relieve the Consultant of its responsibility for the accuracy, adequacy, fitness, suitability and coordination of its work product.

SECTION 4 CONSTRUCTION COSTS

4.1 If the cost of construction exceeds the cost agreed upon by the City by more than 5% of the lowest bona fide bid or negotiated proposal, the City may (1) give written approval of an increase in such fixed limit, (2) authorize rebidding or renegotiating of the Project, (3) terminate the Project and this Agreement in accordance herewith, or (4) cooperate in revising the Project scope or quality, or both, as required to reduce the construction cost. In the case of (4), the Consultant, without additional charge to the City, shall consult with the City and shall revise and modify the drawings and specifications as necessary to achieve compliance with the cost agreed upon by the City. Absent negligence on the part of the Consultant in making its estimates of probable construction cost, providing such modifications and revisions shall be the limit of the Consultant's responsibility arising from the establishment of such construction costs, and having done so, the Consultant shall be entitled to compensation for all other services performed, in accordance with this Agreement.

SECTION 5 BASIS OF COMPENSATION

- 5.1 The City shall compensate the Consultant for an amount not to exceed **\$911,875.82** exclusive of authorized Reimbursable Expenses (**\$923,375.82** inclusive of Reimbursable Expenses if authorized), based on services rendered pursuant to Sections 2.3 through 2.6 and **EXHIBIT "1,"** Scope of Services, of this Agreement by allocating the estimated percentage of work for each of the phases set forth in Section 5.2. Billings for each phase shall not exceed the amount allocated to each phase.
- 5.2 Payment to the Consultant of the sum set forth in Section 5.1 shall be allocated based on the estimated percentage of work completed for each of the following phases:

Task 1 Project Management & Meeting	\$65,651.79	7.2%
Task 2 Field Investigations and Data Collection	\$128,758.46	14.1%
Task 3 Permitting	\$199,320.22	21.9%
Task 4 30% Design Phase Services	\$163,257.62	17.9%
Task 5 90% Design Phase Services	\$201,357.22	22.1%
Task 6 100% Design Phase Services	\$121,335.86	13.3%
Task 7 Bidding Services	\$20,194.65	2.2%
Task 8 Additional Services	\$12,000.00	1.3%

5.3 Additional services of the Consultant as described in Section 2.7, if any, shall be compensated as follows:

See EXHIBIT "B" Hourly Rates of the Continuing Services Agreement-

- 5.4 Reimbursable Expenses as defined in Section 6 shall be reimbursed to the Consultant by the City as provided in Section 6.
- 5.5 If the scope of the Consultant's services are changed materially through no fault of the Consultant, compensation due to the Consultant shall be equitably adjusted, either upward or downward.

SECTION 6 BILLING AND PAYMENTS TO CONSULTANT

- 6.1 Billing by the Consultant shall be in accordance with EXHIBIT "E" of the Continuing Services Agreement. Payments to the Consultant shall also be in accordance with EXHIBIT "E" of the Continuing Services Agreement and EXHIBIT "2" of this Agreement.
- 6.2 REIMBURSABLE EXPENSES
- 6.2.1 Reimbursable Expenses shall mean expenses incurred by the Consultant and Consultant's in the interest of the Project, as follows:

Not to exceed **\$11,500.00** without prior written authorization by the City.

6.2.1.1 Reasonable expenses of: long-distance communications; mileage reimbursement in accordance with Section 2-2 of the Code of Ordinances of the City of Sunrise, Florida; fees paid for securing approval of authorities having jurisdiction over the Project; actual cost of reproduction, postage and handling of drawings, specifications and other documents; renderings, models and mock-ups requested by the City; additional insurance coverage or limits, including professional liability insurance, requested by the City in excess of that required in the Request For Qualifications. The Consultant shall only be reimbursed for the direct cost of the item without additional mark-up. Costs for meals, snacks, and beverages are not considered a reimbursable expense.

SECTION 7 TERM

7.1 This Agreement shall commence on the date this instrument is fully executed by all parties and shall continue in full force and effect through **1,027 days**, unless otherwise terminated pursuant to Section 8.1 or 8.2, or other applicable sections of this Agreement. The City's City Manager, in his sole discretion, may extend the term of this Project Agreement through written notification to the Consultant. Such extension shall not exceed one-hundred eighty (180) days. No further extensions of this Agreement shall be effective unless authorized by City code or City Commission action.

SECTION 8 TERMINATION

- 8.1 TERMINATION FOR CAUSE
- 8.1.1 This Agreement may be terminated by either party upon seven (7) days' written notice to the other should such other party fail substantially to perform in accordance with its material terms through no fault of the party initiating the termination. In the event of a termination for cause, the Consultant shall be entitled to receive compensation for any work completed pursuant to the Agreement to the satisfaction of the City through the date of termination, less any amounts which the City reasonably deems necessary to

withhold in order to correct any defects or deficiencies in the work performed by the Consultant. In no event shall the City pay for profit or overhead on work not performed.

8.2 TERMINATION FOR CONVENIENCE

- 8.2.1 This Agreement may be terminated by the City without cause upon ten (10) days' written notice to the Consultant. In the event of such a termination without cause, the Consultant shall be compensated for all services completed pursuant to this Agreement to the satisfaction of the City up to and through the date of termination, together with Reimbursable Expenses incurred. In such event, the Consultant shall promptly submit to the City its invoice for final payment and reimbursement which invoice shall comply with the provisions of Section 2.5 of EXHIBIT "E" of the Continuing Services Agreement.
- 8.2.2 Under no circumstances shall the City make payment of profit or overhead for work that has not been performed. Additionally, the City shall not make payment for the following items:
- 8.2.2.1 Anticipated profits or fees to be earned on completed portions of the work;
- 8.2.2.2 Consequential damages;
- 8.2.2.3 Costs incurred in respect to materials, equipment or services purchased or work done in excess of reasonable quantitative requirements of this Agreement;
- 8.2.2.4 Expenses of Consultant due to the failure of Consultant or its subconsultants to discontinue the work with reasonable promptness after notice of termination has been given to the Consultant; and
- 8.2.2.5Losses upon other contracts or from sales or exchanges of capital assets or Internal Revenue Code Section 1231 assets.
- 8.2.2.6 Damage or loss caused by delay.
- 8.3 <u>Assignment Upon Termination</u>. Upon termination of this Agreement, the work product of the Consultant shall become the property of the City and the Consultant shall within ten (10) working days of receipt of written direction from the City, transfer to either the City or its authorized designee, all work product in its possession, including but not limited to, designs, specifications, drawings, studies, reports and all other documents and data in the possession of the Consultant pertaining to this Agreement. Upon the City's request, the Consultant shall additionally assign its rights, title and interest under any subcontractor's agreements to the City. All work product provided under this Section shall be used solely for its intended purpose.

SECTION 9 SEVERABILITY

9.1 If any term or provision of this Agreement or its application thereof to any person or circumstance shall, to any extent, be held invalid or unenforceable, the remainder of this Agreement or the application of such terms or provisions to persons or circumstances other than those to which it is held invalid or unenforceable, shall not be affected, and

every other term and provision of this Agreement shall be deemed valid and enforceable to the extent permitted by law.

[REMAINDER OF PAGE LEFT INTENTIONALLY BLANK]

Authorized City Representative's Initials:_____

IN WITNESS WHEREOF, the parties hereto have made and executed this Agreement on the respective dates under each signature: the City, signing by and through its Mayor, attested to by its City Clerk, duly authorized to execute same and by Stantec Consulting Services Inc., signing by and through its Client Service Manager, duly authorized to execute same.

<u>CITY</u>

CITY OF SUNRISE, FLORIDA

By: _____ Mayor Michael J. Ryan

_____ day of _____, 2023.

AUTHENTICATION:

City Clerk

(SEAL)

Approved as to form for the City:

Ву: ____

Kimberly A. Kisslan City Attorney

<u>CONSULTANT</u> STANTEC CONSULTING SERVICES INC.

By: _____

Oscar Bello, P.E. Client Service Manager

_____ day of ______, 2023.

AUTHENTICATE:

Secretary

Please type name of Secretary

(CORPORATE SEAL)

WITNESSES:

Authorized City Representative's Initials:_____

EXHIBIT "1"

SCOPE OF SERVICES

<u>T0</u>

PROJECT AGREEMENT

SPRINGTREE WTP RAW WATER SUPPLY WELLS IMPROVEMENTS DESIGN PERMITTING AND BIDDING

The City of Sunrise (City) has requested the Consultant provide professional engineering and hydrogeological services for the design of Four (4) new Biscayne Aquifer water supply wells at the Springtree Water Treatment Plant (WTP) wellfield. The City operates sixteen (16) Biscayne Aquifer water supply wells at the Springtree WTP wellfield. Several existing wells at the Springtree WTP wellfield have low specific capacity which results in strained capacity of the wellfield. The City requires four (4) additional wells to increase the capacity and reliability of the wellfield and provide rotational capacity for the rehabilitation or replacement of some existing wells.

The scope of the project includes the following major components for the four (4) new water supply wells:

- Field reconnaissance of new well locations.
- Evaluate locations to comply with Broward County EPGMD Wellfield Protection Zones and Contaminated Sites.
- Perform new water supply well test borings.
- Permitting required by the South Florida Water Management District (SFWMD) Water User Permit (WUP) through a Letter Modification and associated twodimensional analytical model for two (2) new wells not included in the current WUP. Permitting through FDEP for supply permit.
- Design Phase Services to include Survey, Subsurface Utility Engineering, 30, 90 and 100-percent design documents.
- Permitting through City of Sunrise Community Development Department (CDD) and Building Department and Broward County Environmental Permit having jurisdiction over the project prior to Bidding.
- Bidding assistance by preparing documents to advertise for bids, presenting at pre-bid meeting, responding to requests for information, review of bid and award recommendation. We anticipate the City of Sunrise will issue a single advertisement for all four (4) new wells.
- Identify pumping/piping improvements needed to connect wells to existing infrastructure.

- Identify temporary construction access points, well foot print, staging area and lay down.
- Identify connection points for temporary power supply for construction at each well location.
- Identify permanent electrical power sources for proposed equipment.

Components shall be designed in accordance with applicable rules and regulations of authorities having jurisdiction over the Project. The Consultant shall rely on data and models provided by the City.

Task 1 - Project Management and Meetings

Subtask 1.1 Project Management

The Consultant will be responsible for overall coordination and management of the project through its assigned Project Manager (PM). The PM will manage the schedule and budget, project execution, staffing, facilitating QA/QC reviews, submittal of deliverables for the duration of project. Under this task the Consultant will prepare monthly progress reports and invoices for the City review and approval.

Subtask 1.2 Meetings

Kickoff Meeting: Consultant will conduct one kickoff meeting in the City's office with Consultant's project manager, key leadership team and City assigned project manager and staff. Topics for discussion will include identification of primary points of contact, site safety requirements, site access, project schedule, issues bearing on design decisions and equipment preferences. The Consultant will prepare the agenda and meeting minutes and moderate the kickoff meeting.

In addition to the kickoff meeting, the Consultant will prepare agenda, meeting minutes and moderate the below listed meetings:

• For budgetary purposes, 24 meetings are assumed

The meeting minutes will be submitted to the City in electronic format.

Deliverables:

- Project schedule
- Meeting Minutes
- Monthly invoices

Task 2 - Field Investigation and Data Collection

Subtask 2.1 Field Investigation

To aid in the development of the design of the four (4) new production wells, the Consultant will visit the new well sites. Two (2) site visits will be conducted to determine the location of the new water supply wells, to place a stake in the ground in preparation of site survey efforts and the advancement of test borings. Two (2) site visits of Springtree WTP for electrical and I&C design field investigation and data collection are also included under this subtask.

Subtask 2.2 New Water Supply Wells Test Boring

The Consultant will contract directly with a rotosonic drilling contractor to install test borings. One test boring, at each proposed well location, will be advanced to an approximate depth of 120 feet. A continuous core will be collected from each test boring and described in the field by the Consultant. Up to ten samples will be collected from each test boring and submitted to a geotechnical laboratory for sieve analysis. Data from the test borings will be used to design the new water supply wells. Water quality samples will not be conducted from the test boring. The borings will be abandoned once the termination depth is reached.

The Consultant will prepare a Technical Memorandum (TM) outlining the findings from the test borings and provide design recommendations for the new water supply wells. This TM will be provided to the City for review and comment. The Consultant shall incorporate comments and finalize the TM and submit it to the City.

Deliverables:

- Draft TM
- Final TM

Subtask 2.3 Geotechnical and Topographic Surveying Services

The Consultant will provide the services of a licensed surveyor for the preparation of the survey for the design activities at the selected sites. The following is included in the survey scope of work:

2.3.1 – Geotechnical Report

The Consultant shall contract with a qualified geotechnical firm to collect subsurface samples for engineering analysis. Four (4) Standard Penetration Test (SPT) borings to a depth of 30 ft below grade at the new well sites will be performed to collect samples needed for the design of the wellhead slab and buried piping. Samples will be collected in 5-ft intervals throughout the explored depths. These samples will be analyzed for engineering properties of soils (soil classification) in general accordance with ASTM D-1586 specifications including water content, organic content and sieve analysis. The geotechnical company will provide an engineering report that includes graphic logs of the test borings and a test boring locations plan, as well as the laboratory testing results.

2.3.2 – Topographic Survey

Provide topographic survey of the project limits, which include the area site plan for the proposed water supply wells. The survey shall locate all trees, palms, and vegetation, edges of pavement, site elements (light poles, guardrail, fencing, signs, etc.), underground and overhead utilities, structures, and topography within the project areas. Additionally, the survey will be based on the following requirements:

- Electronic CADD file(s) in AutoCAD format depicting the Topographic Survey
- Horizontal Datum to be relative to the Florida State Plane Coordinate System, West Zone, North American Datum of 1983 (2011 adjustment).
- Vertical Datum to be relative to the North American Vertical Datum of 1988.

- Depict the ground surface elevation in sufficient detail to define the elevation cross section over the width of the survey limits at maximum 20-foot intervals and extend 5 feet outside the edge of the Right-Of-Way. Obtain the elevation at all abrupt changes of grade, ditch centerlines, and inverts of culvert pipes, inlets, and manholes wherever accessible. Elevation data points will be shown on the survey drawing and labeled.
- Utility test holes are not included in this survey. Test holes are covered in the Additional Services Allowance.
- Limits of topographic survey are proposed well sites and vicinity of the existing raw water main, at the anticipated point of connection.

Deliverables:

- Electronic CADD file(s) in AutoCAD format depicting the Topographic Survey.
- Hard Copy surveyors report (no hard copy submittal of the topographic survey).

Subtask 2.4 Tree Survey

- The Consultant will conduct a tree inventory within the defined project limits affected by proposed site improvements. At a minimum, the Consultant will record information including species, size, and condition of the trees and vegetation within project areas. The Consultant team will collate collected data and utilize ArcGIS and its technologies to translate what our Landscape professionals document in the field to online map interfaces, monitoring dashboards and geographic data.
- This task includes up to one (1) on-site visit for data collection.

<u> Task 3 - Permitting</u>

Consultant will coordinate with the City and permitting agencies and apply for the following regulatory permits required for construction and operation of the proposed new water supply wells.

Subtask 3.1 SFWMD Water Use Permit (WUP) Letter Modification

A letter modification of the City's existing South Florida Water Management District (SFWMD) WUP (Permit No. 06-00120-W) will be required before a Well Construction Permit can be applied for by the City's selected Contractor and the commencement of well construction.

3.1.1 Coordination/Meetings with City and SFWMD

The Consultant will coordinate with both the City and the SFWMD on the project. The Consultant will prepare for and conduct one (1) meeting with the City to discuss aspects of the project that are pertinent to letter modification of the City's existing WUP. The

Consultant will also prepare for and attend one (1) pre-application meeting with the SFWMD and the City.

3.1.2 Development and Submittal of Application for WUP Modification

Since two (2) new wells were part of the previous WUP, the Consultant will prepare and submit a WUP letter modification application and supporting documentation to locate two (2) new water supply wells that will withdraw from the Biscayne Aquifer. The requested permit quantities for these wells will be derived from the current WUP, and no increase in total permitted quantities will be requested. The City's existing two-dimensional model will be updated to include the additional two (2) production wells. This model update will be developed to confirm well locations. After test hole is constructed and performance can be confirmed, the model will be updated to demonstrate the net drawdown effect of the new well at the existing wellfield modeled cell. Depending on the final analytical model results, the letter modification application may or may not require re-assignment of an existing well to stand-by status.

The Consultant will also address the C-51 Reservoir (5 MGD) and Floridan aquifer (2 MGD) allocation in the City's current CUP in the Letter Modification Application. Modeling requirements necessary to address Request for Additional Information (RAI) requirements from the permitting agencies related to the C-51 allocation will be performed under Task 3.1.3.

The Consultant will develop supporting narrative which describes the requested permit action and why the proposed letter modification meets all applicable SFWMD WUP rules. Copies of the letter modification application and supporting materials and model will be provided to the City. The Consultant will respond to reasonable requests for additional information from the SFWMD pertaining to the modified aspects of the WUP. It is assumed that one round of requests for additional information questions will be received.

The Consultant will develop and submit the letter modification to the City's existing WUP electronically to the SFWMD, including required supplemental forms, and other supporting information for the requested WUP modification as described herein. The Consultant will coordinate with the City to confirm that the proposed well location is consistent with Florida Department of Environmental Protection (FDEP) setback distance requirements.

Only the requested modified aspects of the WUP will be required to be addressed by the SFWMD in the WUP letter modification process. The City has ownership or other sufficient form of legal control of the withdrawal site for the WUP purposes, and no efforts to rectify any outstanding regulatory compliance issues are required. Environmental Resource Permit (ERP) or FDEP Public Supply Permit is not anticipated.

3.1.3 Modeling in Support of C-51 Allocation

The Consultant will update the City's model that was submitted in 2021 in support of the C-51 Letter Modification Application to demonstrate safe yields at the 5 MGD C-51 allocation.

MODFLOW will be the model code used to construct the groundwater flow model to simulate saturated conditions. MODPATH software will be used in conjunction with MODFLOW in order to delineate potential groundwater flow trajectories and capture zones of production wells.

A simplified steady state model representative of present-day hydrogeological conditions will be constructed for calibration. During calibration, the magnitude and spatial distribution of hydrologic parameters (hydraulic conductivity, specific yield and potentially, specific storage) will be adjusted manually to provide better fit between simulated and observed water levels in wetland areas as well as pumping and monitoring wells. The steady state model will be converted to a transient numerical model to provide a baseline for simulations of future water management scenarios.

A sensitivity analysis will be performed on the numerical groundwater model to determine how changes in model parameters and boundary conditions affect the final calibrated heads. The sensitivity analysis provides a measure of confidence relative to the hydrologic parameters used in the model and which parameters have the greatest influence on the model calibration results. The sensitivity analysis will primarily target model sensitivities to hydraulic conductivity, storage coefficient, and groundwater recharge rates. The final calibrated heads and groundwater fluxes from sources to sinks will be used as the basis for evaluating the sensitivity for each parameter.

The Consultant will respond to reasonable requests for additional information from the SFWMD pertaining to the modified aspects of the WUP. It is assumed that one round of requests for additional information questions will be received.

Subtask 3.2 Dry Run Permitting

The Consultant will prepare and apply for the following permits on behalf of the City:

- City CDD Engineering Division
- City Building Division
- Broward County Environmental Permit
- ERP de-minimis need to be shown to avoid the need for the permit.

The City shall be responsible for all permitting fees and the Consultant shall provide other supporting documentation as may be required by permitting agencies. It is acknowledged by City that the period required for obtaining permit review is beyond the control of Consultant, except for issues concerning the permitting of the design and Consultant's ability to respond to permitting agency requests for information. Consultant will submit permitting information and respond to requests for information expeditiously.

Subtask 3.3 Landscape Architecture Permitting Assistance

- Consultant Landscape Professionals will attend up to one (1) pre-application meeting. If required, additional meetings will be provided under a separate billing task if requested and authorized by the Client.
- Consultant Landscape Professionals will assist the CLIENT by providing the necessary permit application information in developing a permit submittal as necessary.
- Consultant Landscape Professionals will assist the CLIENT in review of permit comments and coordinate a response, if required. This task includes up to five (5) sufficiency responses. If required, additional responses will be provided under a separate billing task if requested and authorized by the Client.

Task 4 – 30% Design Phase Services

The new water supply wells will be placed within the existing wellfield aquifer model boundaries. The City will provide record drawings of the raw water main and all other existing utilities in the vicinity of the well locations and along the pipeline routes. The Consultant assumes that the new wellheads will be slab on grade construction. The Consultant also assumes that the new wells will be either open hole design or screen and filter pack design depending on the aquifer conditions identified in the test borings. Development of a hydraulic model and its use is not anticipated to determine head requirements.

The Consultant will submit to the City 30% drawings for the new water supply wells and surface and subsurface pipeline connection, as well as a preliminary list of specifications associated with the construction of the new water supply wells, wellheads, controls and piping.

The Consultant will also prepare a preliminary opinion of probable construction cost (OPCC) using the quantities identified in the 30% design drawings. The preliminary design report will identify the significant design elements related to the construction of the new well, pump/motor, controls and pipeline. The Consultant will use the City's standard utility details where applicable. These drawings will consist of the following: General - Cover, Index, Location, General Details and Notes

- Mechanical General Well Design, Piping
- Civil General Notes, Site Plan, Grading, Stormwater Pollution Prevention Plan, Standard Details, Topographic Survey
- Structural Standard Notes and Details
- Electrical Symbols & Notes, Standard Details, Site Plan, Single Line Diagram, Control Schematics, Conduit Development and Schedules
- Instrumentation & Controls (I&C) Legend and Abbreviations, Details, Piping & Instrumentation Diagram (P&ID) Sheets
- Landscape Architecture:

- Clearing, Grubbing, and Tree Protection Plans
 - Document and assign the disposition of existing vegetation to be removed, protected, or relocated using the data collected from the Existing Vegetation Inventory and Analysis phase. Clearing and demolition plans (hardscape and landscape) will be coordinated with and supplement to the Civil Engineer's Existing Conditions and Demolition Plans.
- Enhanced Landscape Plans, Details, and Schedules:
 - Provide enhanced planting design layout, design, details, general notes and schedules.
- Irrigation Plans, Details, and Schedules:
 - Provide irrigation layout, design, details, general notes, and schedules in coordination with enhanced landscape planting design.
- Project Design Continuity & Quality Assurance/Quality Control (QA/QC) Services:
 - Consultant Landscape Professionals will coordinate with the CLIENT and their professional consultants regarding overall design continuity and multi-discipline information sharing through scheduled meetings, letters, transmittals, e-mails, memoranda, minor document control, and other forms of formal and informal communication. This task includes design coordination, quality assurance/quality control (QAQC), and design direction meetings to sustain expectations described in the scope of services as necessary.
 - Consultant will include up to eight (8) one-hour virtual meetings as part of this task.
- Technical Specifications Table of Contents
- Detail callouts may not be included on drawings
- Sections and details may be only partially complete for each discipline
- Proposed materials and equipment list

The Consultant has assumed a local receptacle for a connection to a temporary generator connection will be provided on the control panel.

Preliminary OPCC

The Consultant will prepare a preliminary opinion of probable construction costs (OPCC) for the new wells and associated pump/motor, piping and controls appropriate for the 30% design with a contingency.

Deliverables:

- Electronically submit the 30% Drawings
- Electronically submit Table of Contents for the 30% Technical Specifications
- Electronically submit Class 4 OPCC
- Electronically submit responses to the City's 30% design review comments

It is anticipated that the City will provide 30% review comments to the Consultant within two (2) calendar weeks from receipt of submittal.

<u>Meetings:</u>

- 30% Design Review Workshop
- Project Design Continuity & QAQC Services

Task 5 - 90% Design – (Permit Ready Plans)

The Consultant will be using the City's standard technical specifications to the extent possible for this project and using the Consultant's standard technical specifications to supplement as needed for this project. The 30% design drawings will be updated to incorporate comments from the City and these drawings will be further developed. It is the Consultant's understanding that the City will use and provide to the Consultant the General and Supplementary Conditions, which will be included in the bid documents. The City will provide review comments from the 30% Design to the Consultant and the Consultant will incorporate them into the 90% design. The Consultant will prepare and submit the 90% level design drawings and specifications and prepare the 90% OPCC.

The Consultant will update an opinion of probable construction cost (OPCC) for four (4) new wells, well pads and associated pump/motor, piping and controls for the 90% design with a contingency.

Deliverables:

- Electronically submit the 90% Drawings and Specifications
- Electronically submit the 90% Technical Specifications
- Electronically submit responses to the City's 90% design review comments
- Electronically submit the Class 2 OPCC
- Submit Dry Run Permit Package (Task 3.2)

Meetings:

- 90% Design Review Workshop
- Field Observation Meetings: Consultant's Landscape Professionals will include up to two (2) on-site field observation visits as part of this task to observe existing field conditions for coordination and compliance with the Landscape Architecture drawings and recommendations provided in the Contract Documents.

It is anticipated that the City will provide review within two calendar weeks from receipt of submittal.

<u> Task 6 - 100% Design – (Bid Ready Plans)</u>

The Consultant will incorporate agreed upon comments from the 90% design review meeting into the 100% design - bid documents.

The Consultant will prepare a 100% opinion of probable construction cost (OPCC) for four (4) new wells, well pads and associated pump/motor, piping and controls with a contingency.

Deliverables:

- Electronically submit responses to the City's 90% design review comments
- One (1) full-size (24" x 36") set of drawings (Signed and Sealed).
- Four (4) half-size (11" x 17") sets of drawings.
- One (1) (3-ring bound) sets of technical specifications (Signed and Sealed).
- One (1) bid form in Microsoft Word.
- One (1) technical specification table of contents in Microsoft Word.
- One (1) electronic copy of submittal in PDF format (Signed and Sealed).

Additional copies of the above listed submittals required for permitting review and conformed bid documents will be provided as necessary.

Task 7 - Bidding Services

The Consultant shall assist the City in solicitation of bids. The Consultant will provide the following services during the bidding process:

- Provide a project description to be used in the Advertisement for Bid and Invitation to Bid form.
- Provide a bid form worksheet.
- Provide electronic copies of 100% design drawings, specifications, and the bid form worksheet, for bidding to be made available for distribution to prospective bidders via the City's electronic procurement system. All electronic documents shall be provided in an Americans with Disabilities Act (ADA) compliant format.
- Attend one (1) Pre-Bid Meeting and site visit.
- Coordinate with the City during the bidding process and be available to address bidder's questions and comments during the bidding process.
- Provide responses to address bidder's RFIs related to the design. The City shall be responsible for forwarding design related RFIs to the Consultant. The City shall be responsible for addressing RFIs related to non-design items such as bidding procedures, Contract for Construction, General and Supplementary Conditions, etc. The City shall be responsible for maintaining the RFI log and distributing RFI responses.
- Investigate, study, and analyze proposed substitutions of materials or equipment and advise the City with respect to the same.

- Prepare addenda modifying design drawings and/or specifications to clarify or expand design elements in the bidding documents. The addenda will be provided in electronic format and will be ADA compliant. The City shall be responsible for distributing addenda documents via the electronic procurement system.
- The Consultant shall assist the City in evaluation of the bids received by providing a technical review of received bids and a letter of recommendation of award. The Consultant will assist the City in performing any investigations or reference checks regarding the low apparent bidder and determining whether a bid is responsive, or a bidder is responsible.
- The Consultant will attend one (1) 2-hour duration on-site pre-bid meeting with prospective contractors.
- If necessary, the Consultant will provide clarifications and addenda including clarifications of the drawings and specifications during the bidding process.
- The Consultant will review bid proposals and provide comments to CLIENT, if requested.

Conformed Documents

The Consultant shall incorporate into the 100% documents, which were used for bidding, modifications resulting from the bid phase RFIs and addenda. Following preparation of the conformed Construction Drawings and Specifications, the Consultant shall make such documents available to the City and the Contractor awarded the project. The Consultant shall provide all CAD files after conformed documents are produced.

Deliverables:

- Bid Award Recommendation Letter
- Conformed Drawings (Three 11x17 hard copy and electronic format.)
- Conformed Specifications (Three bound copies and electronic format)
- Participate in Pre-Bid Meeting

Task 8 - Additional Services (Allowance)

This task will be separately authorized by the City's Project Manager for up to Twelve (12) utility test holes if required during the course of this design. Test holes shall be billed at the rate of \$1,000.00 per test hole.

Assumptions and Exclusions:

- 1. Relocation of other existing utilities, arborist service, SFWMD well construction permit (to be obtained by contractor) is not included within this scope of work.
- 2. City will identify the existing well(s) to be re-assigned to stand-by status, if needed.

- 3. The construction of four new wells, wellhead, controls, and pipeline will be under a single contractor.
- 4. No three-dimensional groundwater modeling will be required as part of the Letter Modification to SFWMD. A two-dimensional analytical model will be sufficient to support the Letter Modification to SFWMD. The City can provide the existing modeling files to the Consultant and only minor modifications to the model are required.
- 5. The sites will be considered de Minimis impacts for the ERP. Therefore, ERP Permitting is not included in this scope.
- 6. Proposed sites for the new water supply wells are not located within a floodway and will not require preparation of a No Rise Certification nor a FEMA Letter of Map Revision (LOMR).
- 7. FDEP does not require any additional modifications of the City's Public Water System authorization.
- 8. ERP and FDEP public supply permits are not required.

EXHIBIT "2"

PROJECT SCHEDULE

<u>T0</u>

PROJECT AGREEMENT

SPRINGTREE WTP RAW WATER SUPPLY WELLS IMPROVEMENTS DESIGN, PERMITTING AND BIDDING

Task/Description	Task Completion Duration in Days ^[5]	Task Completion In Days Following Notice to Proceed ^[5]
Task 1. Project Management and Meetings	-	-
Task 2. Field Investigations and Data Collection	84	84
Task 3 Permitting ²	665	749
Task 4 – 30% Design ¹	168	252
Task 5 – 90% Design ⁴	259	511
Task 6 – 100% Design	238	749
Task 7 Bidding Services ³	98	847
Task 8 Additional Services (Allowance)	-	847

^[1] The Detailed Design schedule assumes receipt of City comments within 15 calendar days from the date of submittal.

^[2] The permitting schedule assumes receipt of permit review comments within 30 calendar days from the date of submittal and up to 5 rounds of comments.

^[3] The bidding phase will occur once permits are received.

^[4] Denotes project milestone item per Section 2.9.3 of this Project Agreement.

^[5] Task durations are in calendar days.