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RESOLUTION NO. 2016-_____

A RESOLUTION APPROVING AN AGREEMENT FOR PROFESSIONAL SERVICES IN THE AMOUNT OF $2,862,482 BETWEEN THE CITY OF TAMPA AND CAROLLO ENGINEERS, INC., IN CONNECTION WITH CONTRACT 15-D-00061; TAMPA AUGMENTATION PROJECT – IMPLEMENTATION PROGRAM DESIGN; AUTHORIZING THE MAYOR OF THE CITY OF TAMPA TO EXECUTE SAME; PROVIDING AN EFFECTIVE DATE.

WHEREAS, via the competitive selection process in accordance with Florida Statutes Section 287.055, Consultants' Competitive Negotiation Act and consistent with Federal procurement policies, as applicable, the City of Tampa (City) selected Carollo Engineers, Inc., as (Firm) to provide professional services in connection with Contract 15-D-00061; Tampa Augmentation project – Implementation Program Design, (Project) as detailed in the Agreement for Consultant Services (Agreement); and

WHEREAS, the City desires to enter into an agreement with the Firm to provide certain professional services; and

WHEREAS, it is in the best interest of the City of Tampa to enter into this Agreement.

NOW, THEREFORE,

BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF TAMPA, FLORIDA:

Section 1. That the Agreement between the City of Tampa and Carollo Engineers, Inc., in connection with Contract 15-D-00061; Tampa Augmentation Project – Implementation Program Design as detailed in said Agreement, a copy of which is attached hereto and made part hereof, is authorized and approved in its entirety or in substantially similar form.

Section 2. That the Mayor of the City of Tampa is authorized and empowered to execute, and the City Clerk to attest and affix the official seal of the City of Tampa to, said Agreement on behalf of the City of Tampa.

Section 3. This will provide $2,862,482 for the provision of professional services for use by the Water Department for the Tampa Augmentation Project from the Water–Renewal & Replacement Fund and Water Grants Fund.

Section 4. That other proper officers of the City of Tampa are authorized to do all things necessary and proper in order to carry out and make effective the provisions of this Resolution, which shall take effect immediately upon its adoption.

PASSED AND ADOPTED by the City Council of the City of Tampa, Florida, on JUN 0 2 2016.

ATTEST:

Chairman/~~Chairman Pro-Tem~~, City Council

Shirley Foxx-Knowles

City Clerk/~~Deputy City Clerk~~

Approved as to Legal Sufficiency by
Rachel S. Peterkin, Assistant City Attorney

1/2016-16

AGREEMENT FOR CONSULTANT SERVICES

THIS AGREEMENT, made and entered into at Tampa, Florida, this _____ day of _____, 20__, by and between the CITY OF TAMPA, a municipal corporation of the State of Florida, hereinafter referred to as "City", and the following entity authorized to do business in the State of Florida: Carollo Engineers, Inc., a Delaware, corporation, hereinafter referred to as "Firm", with an FIEN of 86-0899222.

WITNESSETH:

WHEREAS, the City, desires to engage the Firm to perform certain professional services pertinent to such work which shall be referred to as 15-D-00061; Tampa Augmentation Project – Implementation Program Design "Project" in accordance with this Agreement; and

WHEREAS, the Firm desires to provide such services in accordance with this Agreement.

NOW, THEREFORE, in consideration of the mutual covenants, promises, representations and considerations to be kept, performed and paid, the parties hereto agree for themselves, their successors and assigns, as follows:

I. GENERAL SCOPE OF THIS AGREEMENT

A. The relationship of the Firm to the City will be that of an independent consultant for the Project; and the Firm shall provide the services required under this Agreement in accordance with acceptable practices and ethical standards.

B. The scope of services to be provided is indicated in **Exhibit A**.

II. DATA AND SERVICES TO BE PROVIDED BY THE CITY

The City shall provide:

A. Available plans and specifications of existing construction.

III. PERIOD OF SERVICE

A. The Firm shall begin work promptly after receipt of a fully executed copy of the Agreement and a Notice to Proceed. The Agreement shall remain in force until the completion of all construction and related post construction activities as described in Exhibit A for the Project.

B. The Firm's services called for under this Agreement shall be completed provided that, if the Firm's services are delayed for reasons beyond the Firm's control, the time of performance shall be adjusted appropriately.

IV. GENERAL CONSIDERATIONS

A. All original sketches, tracings, drawings, computations, details, design calculations, specifications and other documents and plans that result from the Firm's services under this Agreement shall become and remain the property of the City upon receipt of payment by the Firm from the City for services rendered in connection with the preparation of said sketches, tracings, etc. Where such documents are required to be filed with governmental agencies, the Firm will furnish copies to the City upon request.

B. The City acknowledges that the materials cited in Paragraph IV. A. above, which are provided by the Firm, are not intended for use in connection with any project or purpose other than the project and purpose for which such materials were prepared without prior written consent and adaptation by the Firm shall be at the City's sole risk, and the Firm shall have no responsibility or liability therefor.

C. Any use by the City of such materials in connection with a project or purpose other than that for which such materials are prepared without prior written consent and adaptation by the Firm shall be at the City's sole risk, and the Firm shall have no responsibility or liability therefore.

V. COMPENSATION

The City shall compensate the Firm for the services performed with this Agreement an lump sum (by task) of $ $2,862,482 as indicated in **Exhibit B**.

VI. PAYMENT

Payments shall be made upon presentation of the Firm's approved invoice.

VII. RECORDS

Records for Personnel Expenses shall be kept on a generally recognized accounting basis and shall be available to the City or its authorized representative at mutually convenient times.

With respect to all matters covered by this Agreement, records will be made available for examination, audit, inspection, or copying purposes at any time during normal business hours at a location within Hillsborough County, Florida as often as the City, HUD, representatives of the Comptroller General of the United States or other federal agency may reasonably require. Firm will permit same to be examined and excerpts or transcriptions made or duplicated from such records, and audits made of all contracts, invoices, materials, records of personnel and of employment and other data relating to all matters covered by this Agreement. The City's right of inspection and audit shall obtain likewise with reference to any audits made by any other agency, whether local, state or federal. Firm shall retain all records and supporting documentation applicable to this Agreement for five (5) years from the date of submission. The Firm will submit or assist with submission of the annual performance report to HUD, if applicable. If any litigation, claim, negotiation, audit, monitoring, inspection or other action has been started before the expiration of the required record retention period, records must be retained until completion of the action and resolution of all issues which arise from it, or the end of the required period, whichever is later.

VIII. PERSONNEL

The Firm represents that it has or will secure, at its own expense, all personnel required in performing the services under this Agreement. All personnel engaged in the work shall be fully qualified and shall be authorized or permitted under State and local law to perform such services. No person who is serving sentence in a penal or correctional institution shall be employed for work under this Agreement. The Firm further certifies that all of its employees assigned to serve the City have such knowledge and experience as required to perform the duties assigned to them. Any employee of the Firm who, in the opinion of the City, is incompetent, or whose conduct becomes detrimental to the work, shall immediately be removed from association with the certain professional engineering services under this Agreement.

IX. SUSPENSION, CANCELLATION OR ABANDONMENT

In the event the Project is suspended, cancelled or abandoned, the Firm shall be given fifteen (15) days prior written notice of such action and shall be compensated for the professional services provided and reimbursable expenses incurred up to the date of suspension, cancellation or abandonment in an amount mutually agreed to by the City and Firm and supported by back-up documentation.

Upon suspension, cancellation or abandonment hereof, Firm shall immediately cease work hereunder and shall be compensated for its services rendered up to the time of such cancellation or termination on a quantum meruit basis; and the City shall have no further financial obligation to Firm.

In the event the Project is suspended, cancelled or abandoned, the Firm shall deliver all original sketches, tracings, drawings, computations, details, design calculations, specifications and other documents and plans that result from the Firm's services under this Agreement. The aforementioned original sketches, tracings, drawings, computations, details, design calculations, specifications and other documents and plans shall be without restriction on future use by the City.

X. TERMINATION

A. Termination for Cause**.**

In the event that the Firm shall for any reason or through any cause not have completed performance within the time fixed for performance under this Agreement; or any representation or warranty made under Article XII of this Agreement shall prove to be untrue in any material respect; or the Firm shall otherwise be in default under this Agreement; or the Firm has subcontracted, assigned, delegated, transferred its rights, obligations or interests under this Agreement without the City's consent or approval; or the Firm has filed bankruptcy, become insolvent or made an assignment for the benefit of creditors, or a receiver, or similar officer has been appointed to take charge of all or part of Firm assets; or the Firm disclosed City confidential information, procedures or activities; or the Firm fails to aggressively, adequately, timely and appropriately perform the services required by this Agreement to the satisfaction of the City, or other similar cause, the City may terminate this Agreement for cause.

Then the City may provide five (5) days written notice that the conduct of the Firm is such that the interests of the City are likely to be impaired or prejudiced, stating the facts upon which the opinion is based. Then the City may upon fifteen (15) days written notice, and at the end of the (15) days terminate this Agreement for cause (herein "Termination Date"). Upon that termination for cause, the Firm shall be entitled to compensation for services properly and satisfactorily performed through the date of such termination for cause. However, no allowance shall be included for termination expenses. In the event of such termination for cause, the Firm shall be entitled to receive just and equitable compensation for any satisfactory work performed as of the Termination Date; however, Firm shall not be compensated for any anticipatory profits that have not been earned as of the date of the Termination Date. All work accomplished by Firm prior to the Termination Date shall be documented. In the event the project is terminated for cause pursuant to this Article, the Firm shall deliver all original sketches, tracings, drawings, computations, details, design calculations, specifications and other documents and plans that result from the Firm's services under this Agreement. The aforementioned original sketches, tracings, drawings, computations, details, design calculations, specifications and other documents and plans shall be without restriction on future use by the City. Notwithstanding the above or any section herein to the contrary, Firm shall not be relieved of liability to the City for damages sustained by the City by virtue of any breach of the Contract by Firm.

B. Termination for Convenience.

The City may reduce the scope of work or terminate work under this Agreement or amendment to this Agreement without cause; in the event of such scope reduction or termination other than for cause, the City shall compensate the Firm for services properly performed through the date of such reduction in scope or termination, which date shall be fixed in written notice from the City and which date shall be not sooner than fifteen (15) days after notice. Notwithstanding such termination or reduction in scope, the City shall be entitled to receive from the

Firm upon request any and all information related to the Project and the City shall preserve and protect all such information and assure ready access thereto by the Firm in connection with resolution of the amount due to the Firm. The City, at its own discretion, shall be entitled to direct the Firm to terminate any or all of the Firm's subcontracts or subconsulting agreements. In the event the project is terminated for convenience pursuant to this Article, the Firm shall deliver all original sketches, tracings, drawings, computations, details, design calculations, specifications and other documents and plans that result from the Firm's services under this Agreement. The aforementioned original sketches, tracings, drawings, computations, details, design calculations, specifications and other documents and plans shall be without restriction on future use by the City.

XI. INSURANCE

The Firm, at its own cost and expense, shall effect and maintain at all times during the life of this Agreement insurance, in accordance with that indicated in **Exhibit C.**

XII. INTERESTS OF MEMBERS OF THE CITY

No member of the governing body of the City and no other officer, employee, or agent of the City who exercise any functions or responsibilities in connection with the carrying out of the Project to which this Agreement pertains shall have any personal interest, direct or indirect, in this Agreement.

XIII. INTEREST OF THE FIRM

The Firm covenants that it presently has no interest and shall not acquire any interest, direct or indirect, in any project to which this Agreement pertains or any other interest which would conflict in any manner or degree with its performance of any contracted service hereunder. The Firm further covenants that in the performance of this Agreement no person having such interest shall be employed.

The Firm warrants that he or she has not employed or retained any company or person, other than a bona fide employee working solely for the Firm to solicit or secure this Agreement and that he or she has not paid or agreed to pay any person, company, corporation, individual, or Firm, other than a bona fide employee working solely for the Firm any fee, commission, percentage, gift, or other consideration contingent upon or resulting from the award or making of this Agreement.

The Firm shall disclose any clients that may either conflict with or affect its independent judgment when performing any work for the City of Tampa covered by this Agreement. Failure of the Firm to disclose the above professional conflict of interest may result in termination of this Agreement pursuant to Article X of this Agreement and may require the return of all payments, if any, made to the Firm from the City. If, in its sole discretion the City of Tampa determines that a professional conflict of interest is deemed to exist, the Firm shall be disqualified from participating in the proposed Project.

XIV. COMPLIANCE WITH LAWS

A. The Firm shall comply with the applicable requirements of State laws and all Codes and Ordinances of the City of Tampa as amended from time to time.

B. If the Project involves E.P.A. Grant eligible work, the City and the Firm agree that the provisions of 40 CFR, Part 35, Appendix C-1, shall become a part of this Agreement and that such provisions shall supersede any conflicting provisions of this Agreement for work performed under said Agreement.

C. If the Project involves work under other Federal or State Grantors or Approving Agencies, the City and the Firm shall review and approve the applicable required provisions or any other supplemental provisions as may

be included in the Agreement.

D. Truth-In-Negotiation Certification: The Firm certifies that the wage rates and other factual unit costs supporting the compensation are accurate, complete, and current at the time of the execution of the Agreement of which this Certificate is a part. The original price and any additions thereto shall be adjusted to exclude any significant sums by which the City determines the Agreement amount was increased due to inaccurate, incomplete, or non-current wage rates and other factual unit costs and that such original Agreement adjustments shall be made within one (1) year following the end of the Agreement.

E. Public Entity Crimes.

Pursuant to Subsection 287.133(2) and (3), F.S., a person or affiliate who has been placed on the convicted vendor list following a conviction for a public entity crime may not submit a bid, proposal, or reply on a contract to provide any goods or services to a public entity; may not submit a bid, proposal, or reply on a contract with a public entity for the construction or repair of a public building or public work; may not submit bids, proposals, or replies on leases of real property to a public entity; may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity; and may not transact business with any public entity in excess of the threshold amount provided in Section 287.017, F.S., for Category Two, for a period of 36 months following the date of being placed on the convicted vendor list. This contract may be terminated if the Firm is found to have submitted a false certification as provided under Subsection 287.135(5), F.S., or has been placed on either of the aforementioned lists.

F. Scrutinized Companies.

Pursuant to Section 287.135, F.S., a company that, at the time of bidding or submitting a proposal for a new contract or renewal of an existing contract, is on the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Section List, created pursuant to Section 215.473, F.S., is ineligible for, and may not bid on, submit a proposal for, or enter into or renew a contract with an agency or local government entity for goods or services of $1 million or more. This contract may be terminated if the Firm is found to have submitted a false certification as provided under Subsection 287.135(5), F.S., or has been placed on either of the aforementioned lists.

XV. ASSIGNABILITY

The Firm shall not assign or transfer any interest in this Agreement without consent from the City; provided, however, that the claim for money due or to become due the FIRM from the City under this Agreement may be assigned to a bank or other financial institution or to a Trustee in Bankruptcy. Notice of any such assignment shall be furnished promptly to the City.

XVI. EQUAL EMPLOYMENT

During the performance of this Agreement or any related Work Order, the Firm shall:

A. Not discriminate against any employee or applicant for employment because of race, color, religion, age, sex, handicap, or national origin. The Firm shall take affirmative action to ensure that applicants are employed and that employees are treated during employment without regard to their race, color, religion, age, sex, handicap, or national origin. Such action shall include, but not be limited to the following: Employment, upgrading, demotion, or transfer; recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Firm shall post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

B. In all solicitations or advertisements for employees placed by or on behalf of the Firm, it must state that all qualified applicants will receive considerations for employment without regard to race, color, religion, age, sex, handicap, or national origin.

XVII. EQUAL BUSINESS OPPORTUNITY PROGRAM

A. The Firm shall demonstrate good faith effort toward the utilization of City of Certified Women/Minority Business Enterprise (W/MBE) and Small Local Business Enterprise (SLBE) subconsultants or suppliers.

B. The City shall make available a list of Certified W/MBEs and SLBEs.

C. The Firm shall report to the City its subcontractors/subconsultants/suppliers solicited or utilized **(Exhibit D).**

D. At the time of the submission of invoices, the Firm shall submit to the City a report **(Exhibit D)** of all subcontractors, subconsultants or suppliers utilized with their final contract amounts and any other reports or forms as may be required by the City.

XVIII. CITY CODE OF ETHICS

In connection with this Agreement, the Firm hereby covenants and agrees that it shall comply with all applicable governmental laws, statutes, rules and regulations including, without limitation, the City of Tampa's Code of Ethics. Pursuant to Section 2-522 of the City of Tampa Code, the Firm acknowledges that if it fails to comply with the City of Tampa's Code of Ethics, such a failure shall render this Agreement voidable by the City and subject the Firm to debarment from any future City contracts or agreements.

XIX. NEGATION OF AGENT OR EMPLOYEE STATUS

Firm shall perform this Agreement as an independent consultant and nothing contained herein shall in any way be construed to constitute Firm or the assistants of Firm to be representative, agent, subagent, or employee of City or any political subdivision of the State of Florida. Firm certifies Firm's understanding that City is not required to withhold any federal income tax, social security tax, state and local tax, to secure worker's compensation insurance or employer's liability insurance of any kind or to take any other action with respect to the insurance or taxes of Firm and assistants of Firm.

In no event and under no circumstances shall any provision of this Agreement make City or any political subdivision of the State of Florida liable to any person or entity that contracts with or that provides goods or services to Firm in connection with the Services the Firm has agreed to perform hereunder or otherwise, or for any debts or claims of any nature accruing to any person or entity against Firm; and there is no contractual relationship, either express or implied, between City or any political subdivision of the State of Florida any person or any political subdivision of the State of Florida any person or entity supplying any work, labor, services, goods or materials to Firm as a result of the provisions of the Services provided by Firm hereunder or otherwise.

XX. SEVERABILITY

If any item or provision to this Agreement is held invalid or unenforceable by a court of competent jurisdiction, the remainder of the Agreement 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.

XXI. CHOICE OF LAW

The laws of the State of Florida (without giving effect to its conflicts of law principles) govern all matters arising out of or relating to this Agreement, including, without limitation, its interpretation, construction, performance, and enforcement.

XXII. DESIGNATION OF FORUM

Any party bringing a legal action or proceeding against any other part arising out of or relating to this Agreement may bring the legal action or proceeding in the United States District Court for the Middle District of Florida, Tampa Division or in any court of the State of Florida sitting in Tampa.

XXIII. AUTHORIZATION

Each party represents to the other that such has authority under all applicable laws to enter into an agreement containing each covenants and provisions as are contained herein, that all of the procedural requirements imposed by law upon each party for the approval and authorization of this Agreement have been properly completed, and that the persons who have executed the Agreement on behalf of each party are authorized and empowered to execute said Agreement.

XXIV. ENTIRE AGREEMENT

This Agreement sets forth the entire agreement between the parties and there are no promises or understandings other than those stated herein. Exhibits to this Agreement shall be deemed to be incorporated by reference as though set forth in full herein. In the event of a conflict or inconsistency between this Agreement and the provisions in the incorporated Exhibits, and unless otherwise specified herein, then this Agreement will prevail.

XXV. INDEMNIFICATION

Indemnity. “To the fullest extent permitted by law, Firm shall indemnify and hold harmless City from liabilities, damages, losses and costs, including reasonable attorney's fees, to the extent caused by the negligence, recklessness, or intentional wrongful misconduct of the Firm and persons employed or utilized by Firm in its performance hereunder.” The Firm shall not be required to defend, indemnify or hold harmless the City for any acts, omissions, or negligence of the City, the City’s employees, agents, or separate contractors.

XXVI. ESTOPPEL/WAIVER

No waiver of any provisions of this Agreement shall be effective unless it is in writing, signed by the party against whom it is asserted and any such waiver shall only be applicable to the specific instance in which it relates and shall not be deemed to be a continuing waiver.

The failure of the City to enforce any term or condition of this Agreement shall not constitute a waiver or estoppel of any subsequent violation of this Agreement.

XXVII. AUDIT REQUIREMENTS

In the event, that during the period of this Agreement, the Firm expends more than $750,000.00 in federal funds in an operating year from this and other federal grants, the Firm shall, at its own cost and expense, cause to be carried out an independent audit. The audit shall be completed and a copy furnished to the City, within the earlier of thirty (30) calendar days after receipt of the auditor's report(s) or nine (9) months after the end of the audit period, unless a longer period is agreed to in advance by the City. For purposes of this Agreement, an operating and/or audit year is the equivalent to the Firm's fiscal year. The determination of when Grant Funds are expended is based on when the activity related to the expenditure occurs.

The audit shall be conducted in compliance with the Office of Management and Budget: Part 200 Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards, as applicable, which are made a part of this Agreement by reference thereto. In the event the audit shows that the entire funds disbursed hereunder, or any portion thereof, were not expended in accordance with the conditions of this Agreement, the Firm shall be held liable for reimbursement to the City of all funds not expended in accordance with these applicable regulations and Agreement provisions within thirty (30) calendar days after the City has notified the Firm of such non-compliance. Said reimbursement shall not preclude the City from taking any other action as provided herein.

If expenditure does not exceed $750,000.00 during an operating year, the Firm shall provide the City with its annual financial statement within ninety (90) days of the end of its operating year. Said financial statement shall be prepared by an actively licensed certified public accountant.

State Single Audit: Each nonstate entity shall comply with all applicable requirements of section 215.97, F.S., and Audit Requirements. A State single audit is required if an nonstate entity expends $500,000 or more of State financial assistance in any fiscal year of such nonstate entity in accordance with the requirements of the Florida Single Audit Act.

XXVIII. DEFAULT

In accordance with 24 CFR 85.43, a default shall consist of any use of Grant Funds for a purpose other than as authorized by this Agreement, noncompliance with any provision in all Articles herein, any material breach of the Agreement, failure to comply with the audit requirements as provided herein, or failure to expend Grant Funds in a timely or proper manner.

XXIX. BUDGET APPROPRIATIONS

The City is subject to Section 166.241, Florida Statutes, and is not authorized to contract for expenditures in any fiscal year except in pursuance of budgeted appropriations. With respect to this Agreement, the City has budgeted and appropriated sufficient monies to fund the City's obligations under this Agreement; however, all funding under this Agreement for subsequent years is subject to the availability of funds. The obligations of the City hereunder shall not constitute a general indebtedness of the City within the meaning of the Florida Constitution.

IN WITNESS WHEREOF, the City has caused these presents to be executed in its name by its Mayor, and attested and its official Seal to be hereunto affixed by its City Clerk, and the Firm has hereunto set its hand and Seal in TRIPLICATE, the day and year first written above.

CAROLLO ENGINEERS, INC .

By: _____
David Ammerman, Vice President
Authorized Officer or Individual

CITY OF TAMPA

By: _____
Bob Buckhorn, Mayor

ATTEST:

_____
City Clerk/Deputy City Clerk (SEAL)

APPROVED AS TO LEGAL SUFFICIENCY

_____
Rachel S. Peterkin, Assistant City Attorney

The execution of this document was authorized by Resolution No. 2016-___

Exhibit A
Scope of Services
Project: 15-D-00061;
Tampa Augmentation Project - Implementation Program

GENERAL

The following Scope of Services describes the work to be performed by CONSULTANT (sometimes referred to herein as "Engineer") associated with the implementation program for the Tampa Augmentation Project (TAP). This project will evaluate the cost and feasibility of increased use of reclaimed water from the Howard F. Curren Advanced Wastewater Treatment Plant (HFCAWTP) to potentially augment the potable water supplies available for the region.

This project will determine the feasibility of using natural treatment systems to enhance the quality of the reclaimed water currently discharged from the HFCAWTP for delivery as a source of potable water.

Two alternatives of delivering the reclaimed water to the existing potable water supply system will be considered. The first alternative will involve transmitting reclaimed water to the Southwest Florida Water Management District (District) property located in the vicinity of Morris Bridge Road. Hydrogeologic and environmental investigations, followed by groundwater modeling, will be conducted at this location to consider the feasibility of creating wetlands treatment systems and rapid infiltration basins (RIBs) as a means of delivering additional water to the Tampa Bypass Canal (TBC). A pilot wetlands will also be constructed at the HFCAWTP site to demonstrate the treatment capabilities of these natural treatment systems. The second alternative will be the use of a recharge/recovery system to store and recover reclaimed water in the Florida aquifer system (FAS) for subsequent delivery to the Hillsborough River Reservoir. Aquifer recharge using stormwater will also be included in this analysis. Hydrogeologic and environmental investigations, followed by groundwater modeling, will be conducted to consider the feasibility of the recharge/recovery alternative.

The results of these investigations will be summarized in a (Phase l) feasibility analysis to consider the economic, regulatory, and institutional attributes of the strategies. An important element of the feasibility analysis will be a determination of the volume of the reclaimed water delivered to the environment which can be reliably recovered and used as additional raw water supplies for potable water production. This analysis will also consider the cost of the TAP program in comparison to other alternative water supplies in the region as defined in previous engineering reports by others. The study will include a plan for the final design and implementation (Phase ll) of the TAP program.

This scope of services presents the main work tasks that will result in the development of a series of individual deliverables as described in Tasks 2 through 8. The results of these efforts will then be summarized in a final report to the City as described in Task 9. Optional Tasks which the City may also wish to execute are provided in Task 10.

Task 1 – Project Management

1.1 Project Management: The Engineer will provide project management throughout the duration of this project. Project management activities will generally consist of the following:

- Day-to-day communications and coordination with City of Tampa staff and members of the Engineer's Project Team as required to conduct the TAP study.
- Preparation of a project work plan and distribution to project personnel. The work plan will include the project purpose and objectives, scope of work, an organization chart, project delivery schedule, hours allocated to each Engineer's Project Team member for completion of each task, and project flow chart. The project work plan will be stored on the project site for access by project participants.
- Project Updates. Provide the City with a monthly project update report that identifies what work has been performed during the month and a summary of work anticipated in the upcoming month. These monthly project update reports will be delivered as part of the monthly progress payment request and include updated decision logs, action item logs, and an estimate of the work completed (actual versus projected).
- Project Schedule. Maintain a project schedule for the management of the study. Each task identified in the scope of work will be included in the project schedule. The project schedule will be updated monthly and delivered to the City as part of the monthly progress payment request.
- Communications. Create and maintain a ProjectWise site (or alternate means) to provide access to materials being produced by authorized members of the City/Engineer's Project Team.
- Maintain Action Item and Decision Logs. Create and maintain throughout the project an Action Item and Decision Log. These logs will be routinely updated and included in the Monthly Status monthly project update reports, and will be available on the project site.
- Presentation Materials. The Engineer will develop and deliver presentation materials for the use by the Engineer's Project Team/City in providing status reports to City and other agencies deemed appropriate by the City. The presentation materials will be in Power Point format and shall be suitable for public display. Refer to Tasks 2 through 9 for additional information on meetings and workshops planned for this project.
- SWFWMD Grant Requirements. The Engineer will incorporate requirements of the SWFWMD Grant into the management of the project.

1.2 Project Kickoff Meeting: The Engineer will schedule and attend a project kickoff meeting. This will include coordination with the City and Engineer's Project Team on the timing and location of this meeting. The Engineer will prepare an agenda and presentation materials for the meeting and provide a meeting summary.

1.3 Data Collection: Data collection efforts will be included in the Project Management task. It will be the City's responsibility to provide data as may be requested within 10 days of City's receipt of Engineer's written request. This will be key in maintaining the project schedule and making key decisions. Data collection efforts will include but not be limited to:

- Past project documents from the City and other agencies pertinent to the TAP investigations.
- Historic HFCAWTP documentation including plans, specifications, flow rates, and water quality data. Flow rate and water quality data will be provided in digital format whenever possible.
- Pertinent Past Studies. The Engineer will collect and review historic plant, hydrogeological, and environmental studies performed to evaluate the performance of the HFCAWTP and within the project area with respect to the TAP objectives.
- Historic HFCAWTP Operational Performance Records. The Engineer will summarize the past 10 years of plant performance records based on parameters reported in the monthly DMR in both table and graph format to establish a baseline of performance for the plant. The Engineer will review up to three years of diurnal (hourly) data as part of the analysis of transfer pumping and storage requirements.
- The Engineer will request and review available reclaimed water quality data associated with primary and secondary drinking water standards and priority pollutants to further define the anticipated quality of water delivered to the proposed natural treatment systems.
- Historical raw water flows and potable water flows and quality associated with the City of Tampa drinking water system for the previous 10 years.
- Inventory of potable water users within the project area including location in GIS compatible format, customer classification, and one year of historical potable water demands.
- Current projected wastewater flows and potable water demands for the City of Tampa. The projected flows and water demands provided by the City will be used for all applicable supply and demand analyses.

The data listed above is intended to cover major information needs known at this time. It is to be expected that additional data will be required as the project progresses.

Task 1 Deliverables:

- Project Work Plan
- Monthly Project Update Reports (18 total)
- Data Request(s)
- Project Kickoff Meeting Agenda and Summary

Task 1 Meetings/Workshops:

- Project Kickoff Meeting

Task 2 – Regulatory/Institutional Analysis

2.1 Regulatory Inventory and Overview: TAP will involve “Waters of the State”, wastewater and water use regulations. The introduction of a new raw water supply in the project area will also involve local utilities and permitting agencies. Under Task 2 the Engineer will inventory and summarize the regulatory agencies and utilities which may be involved with the implementation of TAP, as well as identify the potential anticipated project activities to facilitate permit approval or entity coordination.

2.2 Site Specific Regulatory Issues: The analysis of regulatory/institutional issues will include review and analysis of the following regulatory/institutional issues anticipated to be important to the TAP.

- Overview of existing and proposed TMDLs in the Project area in light of HFCAWTP product water quality.
- Summary of the regulatory requirements of FAC chapter 62 – 610 Part IV, RAPID-RATE LAND APPLICATION SYSTEMS, will be developed as it may apply to new rapid infiltration basins located on District property.
- A summary of the regulatory requirements of FAC chapter 62 – 611, WETLANDS APPLICATION, will be developed as it may apply to new wetlands systems located on District property.
- Summary of FAC 62 – 610 Part V regulations on indirect potable reuse and an overview of the current state of indirect potable reuse regulations adding national level will be provided.
- The regulatory issues associated with receiving credit for reclaimed water released into the environment and subsequently recovered as raw water supplies will be considered. This consideration will specifically address the question of whether or not TAP waters will be considered "Waters of the State" once released into the environment. This consideration will include potential strategies that might avoid designation of TAP flows as Waters of the State as well as the regulatory implications of TAP flows becoming Waters of the State prior to reaching the raw water intake of one of the regional water supply utilities.
- Underground injection control (UIC) regulations will be summarized as they pertain to the proposed recharge/recovery system. This will include consideration of recharge using reclaimed water and recharge using stormwater related to the designation of the aquifer and quality of the water to be injected. Water quality parameters of concern and potential treatment requirements will be noted.
- Historical flows in the Hillsborough River Reservoir will be evaluated with respect to the timing and frequency in which reclaimed water from either the District land or recovery wells can be delivered to the reservoir. This analysis will initiate the process of defining TAP as a new water supply eligible for an expanded Water Use Permit (WUP) versus drought proofing the existing water supply at current WUP levels. The spreadsheet model of the Hillsborough River Reservoir that was used during the most recent WUP application will be updated and utilized to evaluate the available flows.
- The historical water quality of the Hillsborough River Reservoir will be summarized and changes in nutrient concentrations as a result of the TAP recharge alternatives will be discussed based on expected nutrient concentrations of the recharge water.

2.3 Project Workshop, Draft and Final Reports: The Engineer will summarize the results of the institutional and regulatory investigations in a draft report to the City. A project workshop will be scheduled with the City to review the draft results of the Task 2 efforts and receive comments from the City on the draft report. The regulatory/institutional workshop will be held in combination with the stakeholder involvement and public outreach workshop discussed in Task 3. The Engineer will include preparation of an agenda and presentation materials as appropriate to review the findings of the report. The Engineer will incorporate comments received from the City in the report and provide a final version of the report in paper and electronic format.

Task 2 Deliverables:

- Draft and Final Report summarizing the results of the Regulatory/Institutional Analysis Evaluation

Task 2 Meetings/Workshops:

- Meeting with FDEP to Review Proposed Investigations and Permitting Strategy
- Meeting with SWFWMD to Review Proposed Investigations and Permitting Strategy
- Project Workshop to Review Results of Regulatory/Institutional Analysis and Results of Stakeholder and Public Outreach analysis (refer to Task 3)

Task 3 – Stakeholder Involvement and Public Outreach

Public outreach is the key to implementing a potable reuse project of any kind. Task 3 will provide a public outreach and engagement effort as an integral part of the feasibility analysis and resulting implementation plan. This will include development of a stakeholder matrix, strategies to gauge community leader and stakeholder knowledge of, and opinions about, potential alternatives and messaging in support of TAP.

3.1 **Outreach Coordination and Team Meetings:** Engineer's Project Team member Katz & Associates (K&A) will serve as the outreach lead, and manage and coordinate outreach activities for K&A and other Engineer's Project Team member - Vistra. This will include communications and coordination with the City throughout the development of the implementation plan. Technical support will be provided to the public outreach efforts by other members of the Engineer's Project Team as required.

3.2 **Stakeholder Database:** Engineer will develop a database mailing/email list of key community leaders, including multi-cultural, faith-based, environmental business and other leaders, as well as organizations and groups that may be affected by field investigations, proposed pipeline routes, or other aspects of TAP. This is also known as a stakeholder database and it will be in a format acceptable to the City that can be manipulated and sortable to maximize its effectiveness as a tool for contacting stakeholders and other interested parties throughout the course of the project. It will include by way of example Morris Bridge residents, off-road bicycling club, equestrian clubs, and others who might be impacted by field investigations on District land, parks, and golf courses along the recharge/recovery route.

3.3 **Key Messages:** Engineer will develop a message plan for the overarching effort as well as for specific stakeholders and topics within the TAP, and

conduct a message workshop (up to four hours long) for the Engineer's Project Team and City to ensure communication consistency and allow all participants to practice using the key messages when responding to questions.

3.4 **Strategic Stakeholder and Public Outreach Plan**: Engineer will prepare a strategic stakeholder involvement and public outreach plan with near- and long-term outreach strategies and activities identified. Implementation of near-term activities will be managed and supported by Engineer, and outreach activities for the next phase will be identified. The outreach strategy and plan will be presented to the Engineer's Project Team and City in the Project Workshop to Review Results of Regulatory/Institutional Analysis and Results of Stakeholder and Public Outreach analysis referenced in Task 2.

3.5 **Informational Materials/Public Outreach Activities:** Engineer will develop multi-faceted informational materials to address both broad and more technical issues. This will include an infographic overview of TAP, a quick facts card, a one-page Frequently Asked Questions (FAQ), and a more detailed fact sheet/white paper describing the proposed TAP as the technical work progresses. Materials will be easy to understand and graphically pleasing to attract interest of the public. For all informational materials one draft and one final draft will be provided for City review and approval before the final materials are produced.

3.6 **Public Outreach-District Land Field Investigations:** Engineer will provide as-needed public outreach and issues-management strategic counsel for emerging stakeholder issues or concerns. This will include:

- Meetings and coordination with the Engineer's Project Team conducting field investigations on District land and City staff, as applicable, prior to deployment to provide instructions on communications with the public.
- Development of a Fact Sheet at project startup for use by the Engineer's Project Team and City staff in answering questions about the nature and intent of the TAP study.
- Meet with and provide notices or other information to Morris Bridge residents, members of the off-road bicycle club, equestrian clubs, or others who will be impacted by field investigations on District land.

3.7 **Rapid Response Plan:** Engineer will develop a rapid response plan to ensure quick action should misinformation arise from field investigation activities or other aspects of the project evaluation process.

3.8 **Media and Social Media:** Engineer will development and support a media and social media outreach plan and implementation calendar.

Task 3 Deliverables:

- Stakeholder database -Task 3.2
- Message plan - Task 3.4
- Strategic stakeholder involvement and public outreach plan (including informational materials, a media and social media plan and a rapid response plan) - Tasks 3.5, 3.8, and 3.9
- Informational materials: one infographic, one quick facts card, one FAQ and four fact sheets, including one Fact Sheet at project startup and a detailed fact sheet/white paper – Tasks 3.5 and 3.6
- Draft and Final Report Summarizing the results of the Stakeholder Involvement and Public Outreach Evaluations

Task 3 Meetings/Workshops:

- Project Kick-Off Meeting - Task 3.1
- 5 On-site Team Meetings - Task 3.1
- Message Plan Workshop - Task 3.4
- Project Workshop to Review Results of Regulatory/Institutional Analysis and Results of Stakeholder and Public Outreach analysis - Task 3.5 in coordination with Task 2
- Two project meetings/training sessions with Engineer's field crews and City staff, as applicable, in advance of deployment - Task 3.6

Task 4 – Hydrogeologic and Environmental Investigations

The viability of the two regional TAP alternatives is dependent on:

1) the volume of new raw water supplies realized by the projects
2) the cost of building and operating the TAP infrastructure
3) the regulatory/institutional issues associated with each alternative

In Task 4, the Engineer will evaluate two regional water supply alternatives which deliver additional raw water supplies to the Hillsborough River Reservoir directly or via the TBC. The objective of these alternatives will be to maximize the use of reclaimed water available from the HFCAWTP as a cost effective alternative water supply available to the region. The first method will be to pump reclaimed water to District owned property located approximately 15 miles north and east of the HFCAWTP. Once delivered to the District property, reclaimed water would flow through the wetlands and RIBs for additional treatment prior to flowing to the TBC. The second TAP alternative will consider construction of a 7-mile transmission pipeline from the HFCAWTP to the Hillsborough River Reservoir. Reclaimed water will be used to recharge the Avon Park formation for subsequent recovery in the Suwannee formation and delivery to the Hillsborough River Reservoir. The hydrogeologic and environmental investigations for Alternatives 1 and 2 will be conducted in parallel. The results of these investigations will be used in conjunction with groundwater modeling to consider the potential yields of each of these alternatives. The cost of the water produced by these alternatives, expressed as $/gallon, will be developed as part of the final report developed in Task 9.

4.1 TAP Alternative No. 1 - Wetlands and RIBs on District Property Investigations: Under Alternative No. 1 reclaimed water will be delivered to the District property. Natural and manmade wetlands systems followed by engineered recharge systems would be constructed to deliver water to the Upper Pool of the TBC. The area referred to herein as the "District property" is that area shown in Figure 1, entitled – *Project Location*, and Figure 2, entitled – *Proposed Field Investigations on District Land*, provided in Attachment 1.A to this scope of services. To better define this area, the Engineer will develop an inventory of existing and relevant information contained in previous studies associated with the District property, with a special emphasis on the hydrogeology and environmental elements of the area.

Building on the informational review, the Engineer will conduct supplemental hydrogeologic and environmental field investigations of the District property. This will consist of borings and analysis and environmental assessments. Surveys will be included in support of the hydrogeologic and environmental field investigations as required to locate this work on a base map of the District property.

Concurrent with the hydrologic and environmental literature review and field investigations the Engineer will conduct a literature review of water quality improvements anticipated through the proposed natural treatment systems that may be located on this site. This will include additional treatment of reclaimed water as it flows through a RIB system into the surficial and deeper aquifers and the additional treatment of reclaimed water as it flows through treatment wetland systems as documented by existing, operational systems elsewhere in Florida. This information will be used to estimate reclaimed water quality as it is delivered to the TBC through these natural treatment systems.

Groundwater modeling will be conducted to locate potential recharge sites on the District property to determine the volume of reclaimed water which may be applied to the District property, and in turn, estimate the volume of reclaimed water applied to the site that can reasonably be expected to be recovered in the TBC. The groundwater modeling will build upon existing groundwater models to the greatest extent practical and updated with pertinent site-specific data collected as part of this investigation.

4.2 TAP Alternative No. 2 - Recharge/Recovery Alternative: The location referred to as the Recharge/Recovery Corridor is shown in Figure 1, entitled - *Project Location,* provided in Attachment 1.A to this scope of services. The Engineer will develop an inventory of existing information in previous studies associated with the Recharge/Recovery Corridor related to the hydrogeology of the study area. The purpose of these investigations is to maximize the use of previous work to define the hydrogeology the Recharge/Recovery Corridor and minimize field investigations needed as part of the scope of services.

Building on the review of existing information discussed above, the Engineer will conduct hydrogeologic investigations of the Recharge/Recovery Corridor. This will consist of up to three 900 foot cores and analysis. Survey will be included in support of the hydrogeologic field investigations as required to indicate the location of this work on a base map of the Recharge/Recovery Corridor.

Concurrent with the review of previous investigations and the supplemental field investigations, Engineer will conduct a literature review of water quality improvements

anticipated through the proposed recharge/recovery system. This will include additional treatment of reclaimed water as it flows upward through the Avon Park aquifer to the Suwannee aquifer systems. This information will be used to estimate reclaimed water quantity and quality as it is delivered to the Suwannee aquifer and on to the Hillsborough River Reservoir through the recovery well system.

Groundwater modeling will be employed to evaluate the number and locations of potential recharge and recovery wells, determine the volume of reclaimed water that may be injected into the aquifer system, and estimate the volume of reclaimed water that can reasonably be expected to be recovered. Inputs to the groundwater model for the Recharge/Recovery Corridor will include previous hydrogeologic investigations by others and hydrogeologic investigations conducted as part of the Alternative No. 2 of the TAP implementation study.

4.3 Project Meeting, Draft, and Final Reports: The Engineer will summarize the results of the hydrogeologic and environmental investigations in a draft report to the City. The Engineer will schedule and attend a project meeting to review the findings of these investigations and comments received from the City on the draft report. This will include preparation of an agenda and presentation materials as appropriate to review the findings of the report. The Engineer will incorporate comments received from the City into the report and provide a final version of the report in paper and electronic format.

Task 4 Deliverables:

- Draft and Final Report Summarizing the results of the Hydrogeologic and Environmental Investigations

Task 4 Meetings/Workshops:

- Project meeting to review the results of Task 4

Task 5 – Route Analysis

The Engineer will conduct a Route Analysis for a reclaimed water transmission pipeline delivering water to: 1) the District property for subsequently discharged into man-made and natural wetland treatment systems and engineered infiltration systems (referred to as TAP Alternative No. 1 in this scope of services) and 2) as required to accomplish an aquifer recharge/recovery system, ultimately delivering water to the Hillsborough River Reservoir (referred to as TAP Alternative No. 2 in this scope of services). These investigations will include:

5.1 Data Collection and Hydraulic Analysis:

- Obtain updated atlases, record drawings, mapping, previous studies, City property locations, and other pertinent data for the evaluations of routes.
- Obtain a design ticket through One-Sunshine Call, and gather major third party utility data within the Corridors that will be evaluated.
- Define optimum pipeline materials and corridor widths required for construction.
- Determine the optimal diameter(s) for the transmission pipeline.
- Hydraulic analysis to determine approximate pressure losses and pumping requirements.

5.2 TAP Alternative No. 1 Routing Analysis – Update of previous Investigations: The Engineer will perform a desktop evaluation of the original route variations (up to three preferred) created for the Tampa Bay Regional Reclaimed and Downstream Augmentation Project, based on anticipated potential discharge points for the TAP Alternative No. 1. This conceptual level evaluation is not intended to serve as a detailed route study. As such the criteria evaluated is different than the comprehensive list indicated on Task 3. This conceptual evaluation is intended to identify a preferred route for the purpose of cost comparison with different TAP implementation solutions.

Determine the preferred TAP Alternative No. 1 route based on evaluation of the following criteria:

- Effect on length of transmission pipeline
- Estimated acquisition costs
- Long-range area planning
- Perceived public acceptance
- Operation and maintenance accessibility
- Environmental impacts and features
- Permitting complexity
- Potential archeological or historic sites, based on existing data
- Potential for contaminated soil or groundwater, based on a review of recorded hazardous sites

This analysis will:

- Identify property and easements requirements for the preferred routes.
- Identify the required permits for the routes.
- Prepare a construction cost estimate for the preferred transmission main to District property.
- Identify a recommended route for Alternative 1.
- Prepare a conceptual level cost estimate for the recommended route.

5.3 TAP Alternative No. 2 Routing Analysis – Pipeline Route Study from HCFAWTP to the Vicinity of Roger's Park: Identify the three most feasible alternative routes for the transmission pipeline required to convey reclaimed water from the HFCAWTP to the terminal distribution point in the vicinity of the DLTWTF and Roger's Park Golf Course. Attend up to two meetings with the City representatives to discuss and possibly modify the alternative routes for further evaluation.

Each of the alternative pipeline routes will be evaluated with respect to the following criteria:

- Preliminary estimated costs
- Long-range area planning
- Safety considerations
- Perceived public acceptance
- Maintenance accessibility
- Use of existing public rights-of-way

- Length
- Conflicts with existing utilities
- Environmental impacts
- Property required, including permanent and temporary easements
- Permitting complexity
- Traffic impacts
- Potential archeological or historic sites, based on existing data
- Potential for contaminated soil or groundwater, based on a review of recorded hazardous waste sites

Upon selecting the recommended alternative (from the three most preferred alternative routes noted above), Engineer will:

- Identify the property and easement requirements.
- Identify the permit requirements
- Prepare preliminary construction cost estimate.

5.4 Project Meeting, Routing Analysis Draft and Final Reports: Engineer will summarize the results of both routing analysis in a draft report and schedule/ attend a project meeting to review the report findings and City comments. This will include preparation of an agenda and presentation materials as appropriate to review the findings of the report. The Engineer will incorporate comments received from the City into the report and provide a final version of the report in paper and electronic format.

Task 5 Deliverables:

- Draft and Final Routing Analysis Considering Transmission Piping to Proposed Recharge/Recovery Corridor, the SWFWMD Property, and to the Rogers Park Golf Course.

Task 5 Meetings/Workshops:

- Project Meeting to review the Draft Routing Analysis.

Task 6 – Review of the HFCAWTP and TAP Storage and Pumping Requirements

6.1 Preliminary Design Investigations: Reclaimed water for the TAP project will come from the City's HFCAWTP. New transfer pumping station and yard piping will be required to deliver the reclaimed water to TAP facilities. Major elements of the preliminary design report for improvements to the HFCAWTP include:

- Summary of Current Permit Conditions
- Overview of Treatment Processes (as defined by the most recent Capacity Analysis Report (CAR))
- Anticipated log reduction of pathogens based on existing HFCAWTP processes and pathogen reductions reported in the literature
- Summary of current industrial pretreatment program and inventory of major industrial customers
- Summary of historical reclaimed water quality as reported in the DMRs
- Summary of available primary and secondary drinking water standards and priority pollutant data if available

- Assessment of operations with respect to use of reclaimed water for indirect potable reuse
- Summary of historical flows (10 years of daily flow, up to 3 years of diurnal flows)
- Flow projections (as provided by City)

Engineer will review previous preliminary design reports by others related to reclaimed water transmission facilities, schedule and attend a site visit to the HFCAWTP to review potential locations for pumping facilities, and discuss these improvements with plant staff. It is anticipated this site visit will be done in conjunction with the site visit described in Task 8 related to siting the wetlands pilot system. The preliminary design of the TAP pumping and transmission facilities will be based on available reclaimed water supplies, anticipated injection capacity and injection pressures. Additional storage is not required for TAP. However, the layout of the TAP facilities will accommodate future ground storage facilities which the City may wish to construct in support of existing programs such as the South Tampa Area Reclaimed (STAR) water system or future reuse programs. For the purposes of sizing the TAP pumping and storage facilities, it will be assumed that they must be capable of transmitting future annual average daily flows of up to 70 mgd to off-site for reuse. The variability and reliability of reclaimed water supplies will be based on recent diurnal flow patterns, historical reclaimed water demands from the City's STAR system, and expected future reclaimed water demands as defined by the City. The historical supplies and demands will be extrapolated to future conditions and used to develop a preliminary design of the plant improvements. This investigation will consider the existing reclaimed water operating protocol for STAR and propose additional protocols as may be appropriate for the TAP alternatives.

6.2 Potable Reuse Considerations

The Engineer will develop a conceptual level analysis of returning water recovered from the Suwanee aquifer and delivered to the raw water intake system of the David L. Tippin Water Treatment Facility (DLTWTF). This analysis will include hydraulic and process considerations. As part of the hydraulic assessment, the Engineer will review as-built information for the raw water intake system for the DLTWTF. The purpose of this evaluation will be to consider locations which might be used to introduce recovered groundwater from TAP, Alternative No. 2. This will include design capacities of existing intake structures and use of existing or new structures to introduce recharge water into the raw water intake. Considerations will include existing hydraulic capacities of intake facilities, ability to obtain mixing of surface and groundwater supplies prior to flowing to the treatment processes, and logic appropriate to controlling groundwater flows to the water treatment facility.

The Engineer will also consider the process implications of blending recovered groundwater with surface water upstream of the potable water treatment processes of the DLTWTF. This investigation will be based on historical surface water quality in the Reservoir and estimated groundwater quality based on the following types of analyses.

- Available historical reclaimed water quality from the HFCAWTP.
- Typical reclaimed water quality from plants similar to the HFCAWTP (for any critical constituents for which site-specific data are unavailable).
- Available historical water quality from the Suwanee aquifer.

- Site specific water quality obtained from the Suwanee and Avon Park formations developed as part of this project (refer to Task 4).
- The projected quality of the recovered water based on groundwater modeling (refer to Task 4).
- Published information on chemical transformation of reclaimed water constituents in the Floridan Aquifer.

To the extent justified by the available information, the anticipated effects of mixing and chemical transformations in the groundwater and surface water system will be assessed using appropriate techniques as dictated by available data. The results of this investigation will be summarized in the alternatives analysis report developed in Task 6.

6.3 Project Meeting, Draft, and Final Reports: The Engineer will summarize the results of Task 6 as a Preliminary Design Report for improvements to the HFCAWTP and the assessment of delivering recovered groundwater to the DLTWTF. For the HFCAWTP, this will include a proposed layout of facilities, estimated costs, and schedule for Phase ll of the project (final design, bidding, and construction). The implications of blending recovered groundwater with surface water will include consideration of plant hydraulic capacity and impacts to treatment. The Engineer will schedule and attend a project meeting to review the findings of these investigations and received comments from the City on the draft preliminary design report. This will include preparation of an agenda and presentation materials as appropriate to review the findings of the report. The Engineer will incorporate comments received from the City into the report and provide a final version of the report in paper and electronic format.

Task 6 Deliverables:

- Draft and Final Preliminary Design Report for Plant Improvements.

Task 6 Meetings/Workshops:

- Project Meeting to the Draft Preliminary Design Report for Plant Improvements.

Task 7 – Recharge/Recovery Permitting

7.1 Recharge/Recovery Feasibility Study: An Aquifer Recharge/Recovery Alternatives Analysis Report will be prepared to evaluate an aquifer recharge program and an aquifer recovery program along the pipeline corridor between the HFCAWTP and the DLTWTF. The target recharge and recovery capacities will be based on the hydrogeologic investigations conducted in Task 4 and the evaluation of available reclaimed water supplies conducted in Task 6. This study will evaluate the hydrogeologic characteristics of the receiving and producing zones, evaluate permitting criteria, identify optimum siting of the recharge/recovery wells, evaluate competing users in the project area, evaluate anticipated water quality from HFCAWTP reclaimed water and stormwater, present preliminary results of groundwater modeling conducted to date, and discuss other criteria expected to affect the City's ability to recharge and recover water in the project area. The purpose of the report will be to identify any fatal flaws up front and to have a document available to begin regulatory and stakeholder acceptance of the project envisioned. A draft copy of the Aquifer Recharge/Recovery Alternatives Analysis Report will be submitted to the City for review and comment. A project meeting will be scheduled to receive City comments prior to finalizing the study.

7.2 UIC Permit Application: Two pre-application meetings are anticipated in FDEP's Tallahassee office. The initial meeting is anticipated following completion of the Aquifer Recharge/Recovery Alternatives Analysis Report. The second pre-application meeting is anticipated following completion of the draft permit application to discuss details of the contents prior to submittal to FDEP.

An FDEP UIC permit application will be prepared and submitted to FDEP under this task. The City will provide the permit application fee. The Aquifer Recharge/Recovery Alternatives Analysis Report will identify the regulatory strategy, number of wells to request in this initial permit application, source water (e.g., reclaimed water and stormwater), and other overall contents of the permit application. The Engineer will respond to up to two Requests for Additional Information (RAIs). A Public Meeting, as required by the UIC process, will be planned and attended by the Engineer's Project Team.

7.3 Water Use Permit Considerations: Also under this task, the Engineer and the City will meet with the District to discuss Water Use Permit (WUP) requirements for construction and operation of a well field in the project area. Discussions with the District are expected to include groundwater credits that may be obtained during aquifer recharge, and WUP permitting criteria for this system. The goal of the District WUP meetings will be to obtain a consensus from District staff that the volumes recharged at the project site, or at least a considerable percentage of recharge volumes, will account for water recovered from the system. Between meetings, action items discussed at the meetings will be attended to and presented at subsequent meetings.

Task 7 Deliverables:

- Draft and Final Feasibility Study for Recharge/Recovery System.
- Draft and Final FDEP UIC Permit Application for Recharge/Recovery System.
- Minutes of meetings with the District including documentation of any consensus reached.

Task 7 Meetings/Workshops:

- Project Meeting to discuss the Draft Feasibility Study.
- Two FDEP Pre-application meetings.
- FDEP Public Meeting.
- Up to Four SWFWMD Meetings to discuss WUP.

Task 8 – Other Investigations

Task 8 provides a scope for a series of efforts which serve to support the overall TAP objectives. These tasks consists of development of a wetlands pilot system, additional information gathering related to existing water use permits, an inventory of City-owned parcels in the Project area, identification of large potable water use customers which may benefit from reclaimed water, and inventory of City stormwater systems in the project area.

8.1 Wetlands Pilot Study: The preliminary design work for the pilot wetlands study will begin with a review of existing documents defining land-use and process locations on the HFCAWTP site. Based on this review, Engineer will schedule a site visit to verify our desk top assessment of potential pilot study sites and discuss pilot study siting with the Plant Manager. The results of these investigations will be documented in a site report to the City and, based on the City's concurrence with the selected site, the Engineer will conduct a topographic survey and geotechnical investigations in support of construction of the pilot wetlands system.

The Engineer will develop a conceptual layout of the pilot wetlands systems and project description sufficient to have the system constructed. The following assumptions have been made for the purposes of budgeting this task:

- Two wetlands plots up to 0.25 acre will be constructed.
- One of the wetlands plots will be designed to optimize treatment for nutrient reduction, primarily nitrogen, should the natural treatment system be constructed on the District property. The second plot will be designed to optimize habitat and aesthetics. This second type of wetland may be useful should the City wish to proceed with the construction of water features on City property or should the City wish to emphasize habitat and aesthetics for wetlands constructed on District property. The aesthetic/habitat oriented wetlands would also be expected to achieve significant reductions in nutrients.
- Discharge from the pilot wetlands system will be collected and returned to the plant drains. This will eliminate a discharge of reclaimed water from the pilot plots. Based on this design it is assumed that an FDEP permit for the pilot study will not be required. This will be verified in the project meetings called for in Task 2.
- Maximum loading to the wetlands will be 100,000 gallons per day total.
- Up to 1,500 feet of 4 inch pipe will be required to route reclaimed water to the wetland system and return the discharge to the plant drain system.
- Meters will be installed at the influent of both pilot plots.
- Demolition of the wetlands on completion of the demonstration project and restoration of the site to its previous condition.

Concurrent with the construction of the pilot wetlands system the Engineer will develop an operating and monitoring plan for the pilot study. The Engineer will conduct weekly site visits to observe operations and collect operating data from the wetlands pilots. The Engineer will schedule and attend a half-day training workshop with subconsultant staff responsible for monitoring the wetlands system. City staff including those from the Plant may attend to learn about the project at their discretion. Reclaimed water samples will be collected and analyzed by the Engineer.

8.2 Draft and Final Reports for the Wetlands Pilot Study: It is anticipated the pilot wetlands system will operate for approximately 12 months. On completion of the 12 month of operations the Engineer will submit a draft report documenting performance of the wetlands treatment systems. The Engineer will schedule and attend a project meeting to review the findings of these investigations and received comments from the City on the draft report. This will include preparation of an agenda and presentation materials as appropriate to review the findings of the report. The Engineer will

incorporate comments received from the City into the report and provide a final version of the report in paper and electronic format.

8.3 Ancillary Data Collection and Analysis: The Engineer will conduct additional investigations applicable to analysis of the TAP as described below:

- The Engineer will obtain historical water use records for the Rogers Park Golf Course/Rowlett Park City properties based on reported pumping as part of the water use permit for this site. This information will be used to provide an estimate of the groundwater conservation which could be achieved by providing reclaimed water to the site.
- The Engineer will conduct the following GIS -based investigations.
    - Inventory of City-owned parcels within the proposed recharge corridor. This information will be directly applicable to siting recharge/recovery facilities.
    - Inventory of large water use customers on the City's potable water system. High-volume use of potable water is often an indication that the site may be able to substitute nonpotable reclaimed water for large portion of their existing potable water demands. Large potable water users will be located on a GIS base map of the City of Tampa and included in the consideration for the TAP transmission pipe route.
    - Inventory of City of Tampa stormwater facilities in the project area. This information is applicable to the consideration of using stormwater as a source of recharge water and recharge as a means of managing stormwater. This information will also be useful in defining potential conveyance from the recharge/recovery corridor to the Hillsborough River Reservoir.
    - Inventory of existing WUPs within the project area which may be able to use reclaimed water in place of high quality groundwater for nonpotable applications.

Task 8 Deliverables:

- Soils Report on Proposed Pilot Wetlands Site
- Topographic Survey of Pilot Wetlands Site and Ancillary Facilities
- Construction Documents for Pilot Wetlands System
- Monitoring and Operations Plan for Pilot Study Wetlands
- Construction of Wetlands Pilot System(s)
- Draft and Final Summary Report of Wetlands Pilot System Performance

Task 8 Meetings/Workshops:

- Project Meeting at HFCAWTP to Locate Pilot Wetlands System and Associated Facilities.
- Half-day training session on operations and monitoring of the pilot wetlands system at the HFCAWTP
- Project Meeting to Review Proposed Pilot System Design
- Project Meeting to Review Six-Month Performance of Pilot System
- Project Meeting to Review Draft Wetlands Pilot System Performance Report.
- Project Meeting with City of Tampa Personnel to Facilitate Obtaining Customer Billing Records for Identification of Large Water Users in the Project Area

Task 9 – Alternatives Analysis Report and Implementation Plan

9.1 Summary of Results: The Engineer will summarize the results of Tasks 2 through 8 in a draft (Phase l) feasibility report.

9.2 Groundwater Modeling and Yield Assessment: In addition to summarizing previous work, the feasibility analysis will include the results of groundwater modeling and permitting efforts with FDEP related to the recharge/recovery alternative. The results of the modeling and institutional input will serve to define the anticipated yield of raw water which the City may expect from the two TAP alternatives. The Engineer will also develop preliminary estimate of the reduction in nutrient loadings to Tampa Bay that may be anticipated from the two alternatives evaluated. The economic value of these reductions will be estimated based on unit costs cited in the literature associated with upgrades to the treatment process and nutrient reductions achieved through stormwater treatment systems.

9.3 Stormwater Conveyance Systems: The Engineer will identify the locations and capacities of existing storm water conveyance systems in the vicinity of the proposed recharge recovery system. Consideration will be given to using these existing storm water systems to convey groundwater retrieved from the Suwannee aquifer to the Hillsborough River Reservoir. The strategy may be feasible in periods of dry weather when storm water conveyance is not required and offers a potential means of reducing the need for additional transmission piping.

9.4 Feasibility Analysis: The Engineer will also develop an engineer's estimate of probable capital and operating cost estimates for both water resource alternatives. Based on the anticipated yields and project costs the unit costs of each alternative will be expressed as dollars/1,000 gallons of raw water delivered to the Hillsborough River Reservoir. The value of the avoided cost of alternate means of reducing nutrient loadings to Tampa Bay will be included as a potential credit applicable to the TAP alternatives. These unit costs will be compared to one another as well as unit costs of other alternative water supplies as cited in previous engineering studies in the Project area and throughout Florida. These economic evaluations will also consider the inherent value of this new water supply and financial models which could be employed to compensate the City of Tampa for the implementation of TAP. The feasibility report will make a determination of economic feasibility based on the unit cost of raw water derived from the TAP alternatives. The feasibility report will also discuss regulatory and institutional issues associated with the TAP project based on the investigations conducted in Tasks 2 and 3.

The feasibility report will estimate the impact on utility rates should the RIBs/wetlands system or the recharge/recovery system be constructed. A detailed implementation plan providing for design and construction (Phase ll) will be developed for the TAP alternative if it is determined to be the most feasible based on economics, regulatory and institutional considerations. The implementation plan will include a project schedule and detailed public outreach program in support of TAP moving forward.

9.5 Project Workshop, Draft, and Final Report: The Engineer will summarize the results of Tasks 2 through 9 into a feasibility analysis of the TAP. The Engineer will

schedule and attend a project workshop to review the findings of the results of the feasibility analysis and received comments from the City on the draft report. This will include preparation of an agenda and presentation materials as appropriate to review the findings of the feasibility analysis. The Engineer will incorporate comments received from the City in to a final feasibility report and provide a report in paper and electronic format.

Task 9 Deliverables:

- Draft and Final TAP Feasibility Report

Task 9 Meetings/Workshops:

- Project Workshop to Review the Findings of the TAP Feasibility Report

Task 10 Optional Tasks (Excluded from Services on this Exhibit)

10.1 Additional Public Outreach tasks at owner's direction:

10.1.1 Communication Briefings: Engineer will provide support of community leader and elected officials briefings at key milestones.

10.1.2 Public Outreach - Recharge/Recovery Alternative Field Investigations: Engineer will provide as-needed public outreach and issues-management strategic counsel for emerging stakeholder issues or concerns such as might occur for Rowlett Park, Rogers Park Golf Course and along the recharge/recovery route. This would include coordination with the team conducting field investigations or other work and would also include preparation and distribution of appropriate public notifications about such activities.

10.1.3 Stakeholder Research: Engineer will prepare baseline for community outreach that will yield an in-depth understanding of the community when it comes to water supply, quality and alternative sources to ensure outreach strategies are effective. This will consist, at a minimum, of one-on-one meetings with up to 30 key community leaders/stakeholders. Engineer will develop a discussion guide for the one-on-one meetings and conduct interviews. Knowledge gained through this effort will inform all of the outreach activities, especially the preparation of the strategic stakeholder involvement and public outreach plan.

Task 10.1 Deliverables:

- Permit application public meeting design - Task 10.1.1 in coordination with Task 7, Recharge/Recovery Permitting
- One-on-one meeting discussion guide - Task 10.1.3
- One-on-one meeting summary report - Task 10.1.3

Task 10.1 Meetings/Workshops:

- Public Meeting for Permit Application Task 10.1.1 in coordination with Task 7

Additional Optional Tasks:

10.2 Additional Survey:

Additional survey may be conducted as required to address unforeseen conditions and support the implementation phase of this project. The Engineer will develop a scope and budget for the City's review and approval prior to initiating work on this task.

10.3 Additional Water Quality Analysis:

The Engineer will collect water samples and ship the samples to the appropriate laboratories for analysis. This may include analysis of primary and secondary drinking water standards and/or analysis of trace organic compounds and pathogens in the HFCAWTP reclaimed water, the pilot wetlands system and/or the Hillsborough River Reservoir.

10.4 Pilot RIB System:

The Engineer will develop plans and construct up to two pilot RIBs. Pilot RIBs will be field-located based on ease of access, avoidance of features that might interfere with the evaluations and minimizing disruptions in general. The pilot RIBs will be approximately 30 ft. x 30 ft. in area and will be constructed of local materials. It is assumed that each test RIB will require a shallow Upper Floridan Aquifer (UFA) well to provide water to load the test RIB cell. The wells will be capable of producing up to 200,000 gpd (140 gpm). This is expected to require a 4-inch to 6-inch diameter well approximately 150 ft. deep will be capable of providing this capacity.

Each test RIB will have 5 surficial aquifer system (SAS) piezometers of variable depths. SAS piezometers will be installed with coarse sand gravel-packs and concrete plinths at land surface. An uncalibrated local groundwater model will be used with characteristic ranges of hydraulic conductivities for aquifer and confining unit layers to perform a sensitivity analysis on the reasonable range of flow capacities that might be required to raise water table to land surface in the test RIBs. The groundwater modeling will also be used to assess the optimal spacing of piezometers and whether aquifer performance tests (APT) will be conducted for the UFA wells.

The total duration of hydraulic testing will be three (3) months, and water level loggers (with barometric correction) will be installed in all piezometers. The elevations and horizontal locations of all production wells and piezometers will be surveyed. The RIB cells will be installed with staff gages to indicate surface water levels, and the staff gages will be surveyed for horizontal and vertical position. The RIBs will be equipped with appropriately-mounted manual recording rain gages.

The elements to be installed for the RIB pilot testing are summarized in Table 1 below.

Table 1. Summary of Recommended Elements to Be Installed For the RIB Pilot Testing

Item	Number Recommended	Item Description
RIB Cells	2	30 ft. x 30 ft. area with small berms (see locations and configuration in Figures 1, 2 & 3)
UFA Production Wells	2	6-in. to 6-in. I.D., 150 ft. deep
UFA Piezometers	2	2-in. I.D., 150 ft. deep
Deep SAS Piezometers	10	2-in. diameter, 3-ft. screens, 30 ft. deep, coarse sand gravel pack, concrete plinth
Shallow SAS Piezometers	4	2-in. diameter, 3-ft. screens, 12 ft. deep, coarse sand gravel pack, concrete plinth
Shallow SAS Piezometers	2	2-in. diameter, 3-ft. screens, 8 ft. deep, coarse sand gravel pack, concrete plinth
Staff Gages	2	3 ft. high reading surface
Rain Gages	2	Appropriately-mounted manual recording fence-post type rain gages (or better).
Well Pumps	2	140 gpm max. flow rate
Well Pump Flow Rate Controllers	2	Throttle valve or equivalent
Discharge Erosion Control System	2	55-gallon drum to receive discharge jet in RIB cell bottom, or equivalent
Totalizing Flow Meters	2	In-line totalizing meters of appropriate sensitivity for the desired flow rates with instantaneous flow rate and total flow indicators
Water Level Sensors & Loggers	20	One for each production well & one for each piezometer
Survey	1	Horizontal and vertical; 2 production wells, 18 piezometers, 2 staff gages

For safety, test control, recording of observations and protection of equipment, the two test sites will require 24 hr/day, 7 day/week personnel observation during the performance of the test (assume up to 3 months).

After the test is completed, the site will returned to its original condition:

- Staff gages and rain gages will be removed;
- SAS piezometers will be pulled out of the ground or plugged and abandoned, as appropriate;
- UFA wells and piezometers will be plugged and abandoned;
- RIB cell berms will be degraded and used to fill in the RIB cell bottoms, returning the land surface to its original profile.

Time of Completion - Phase l Services

Engineer agrees to complete the Draft Phase l Report within 20 months of Notice to Proceed. Work as part of Phase ll (design and construction oversight) will, should the project proceed forward, be added by subsequent addendum to this Agreement.

Compensation

Compensation shall be in accordance with Exhibit B, Fee Schedule.

Optional Tasks and Fees (Excluded from Services on this Exhibit): The City may include some or all of the work covered under Task 10 at their option for a not to exceed limit of $893,935 as documented in Exhibit B. The levels of effort and work to be conducted may be adjusted with the mutual agreement of the City and Engineer for the additional project work to be conducted within the available project funding.

Future Tasks
Tasks which may be part of future authorizations include, but are not limited to:

- Permitting, Final design and construction of the selected the TAP
- Evaluations of aesthetic and environmental improvements to the Rogers Park Golf Course and Rowlett Park
- Inventory of City properties and vacant/underutilized properties in the project area which could be considered for use in an expanded TAP project. Such properties might be used as additional recharge/recovery sites or find use for the development of wetlands and/or RIBs which would recharge the potable water supply or contribute to target minimum flows and levels of regional water bodies.

ATTACHMENT 1.A TO THE SCOPE OF SERVICES

Figures

Figure 1 - Project Location
Figure 2 - Proposed Field Investigations on District Land
Figure 3 - Proposed Pilot Wetlands of HFCAWTP Site

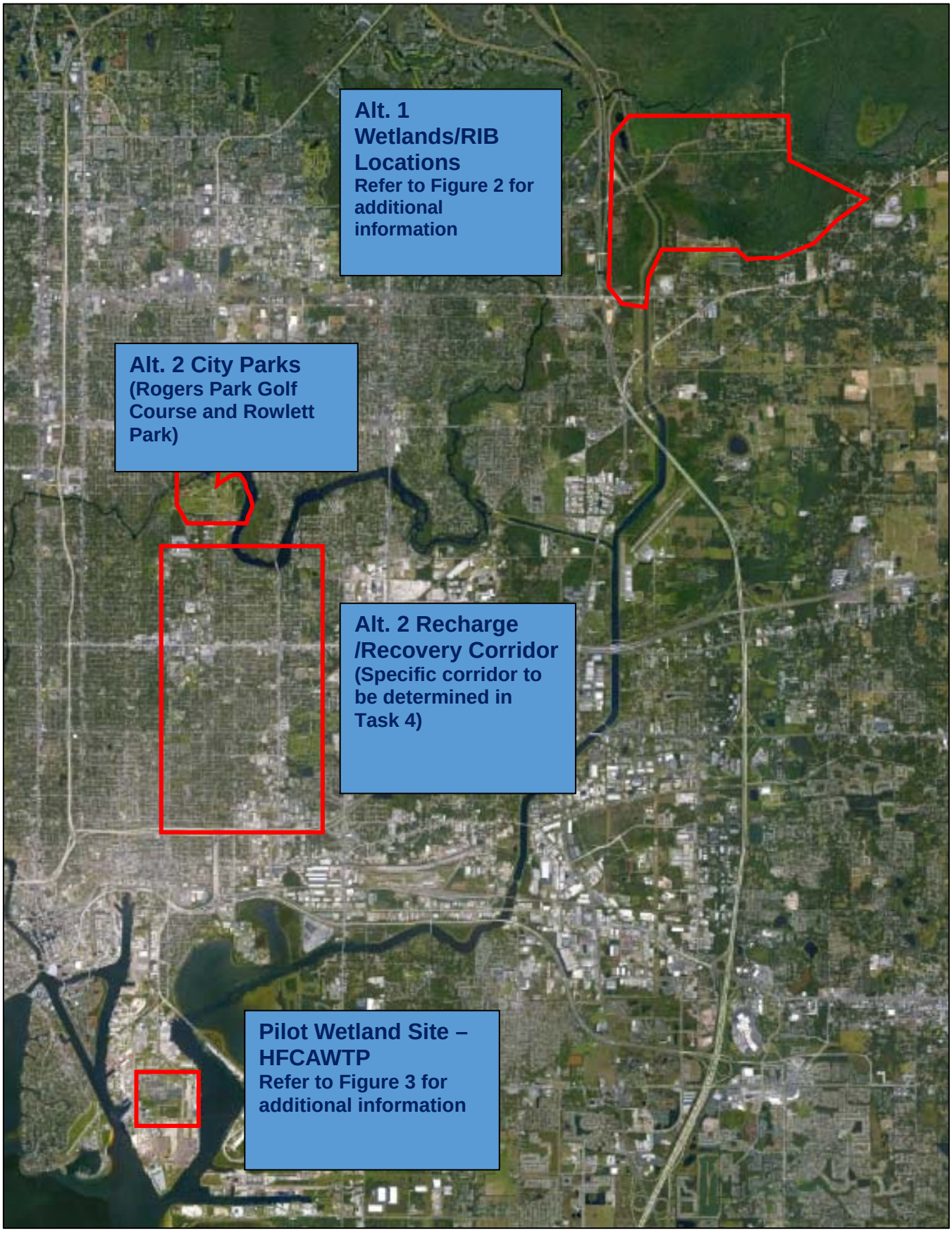

Figure 1 Project Location

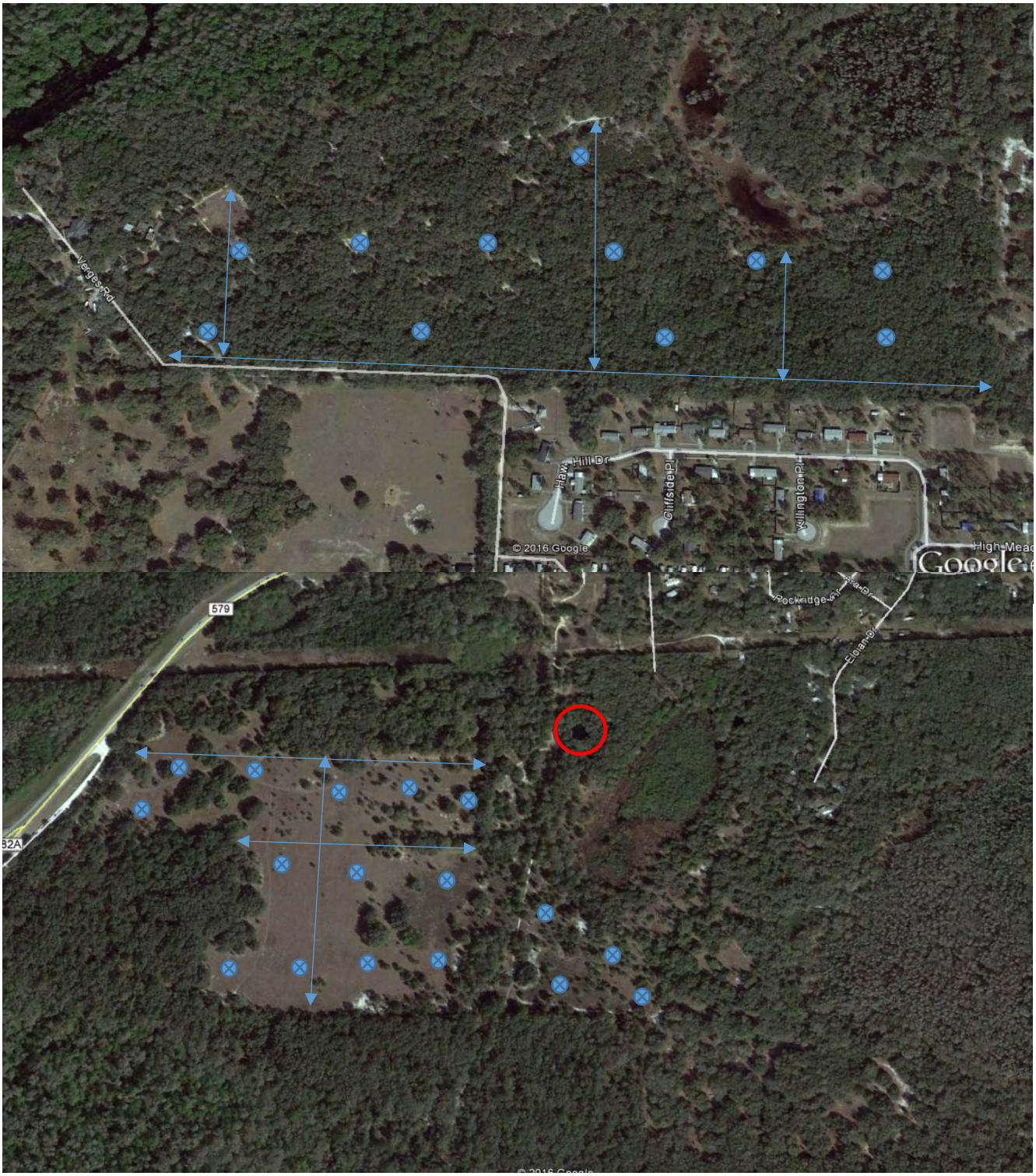

Figure 2 Field Investigations on District Land

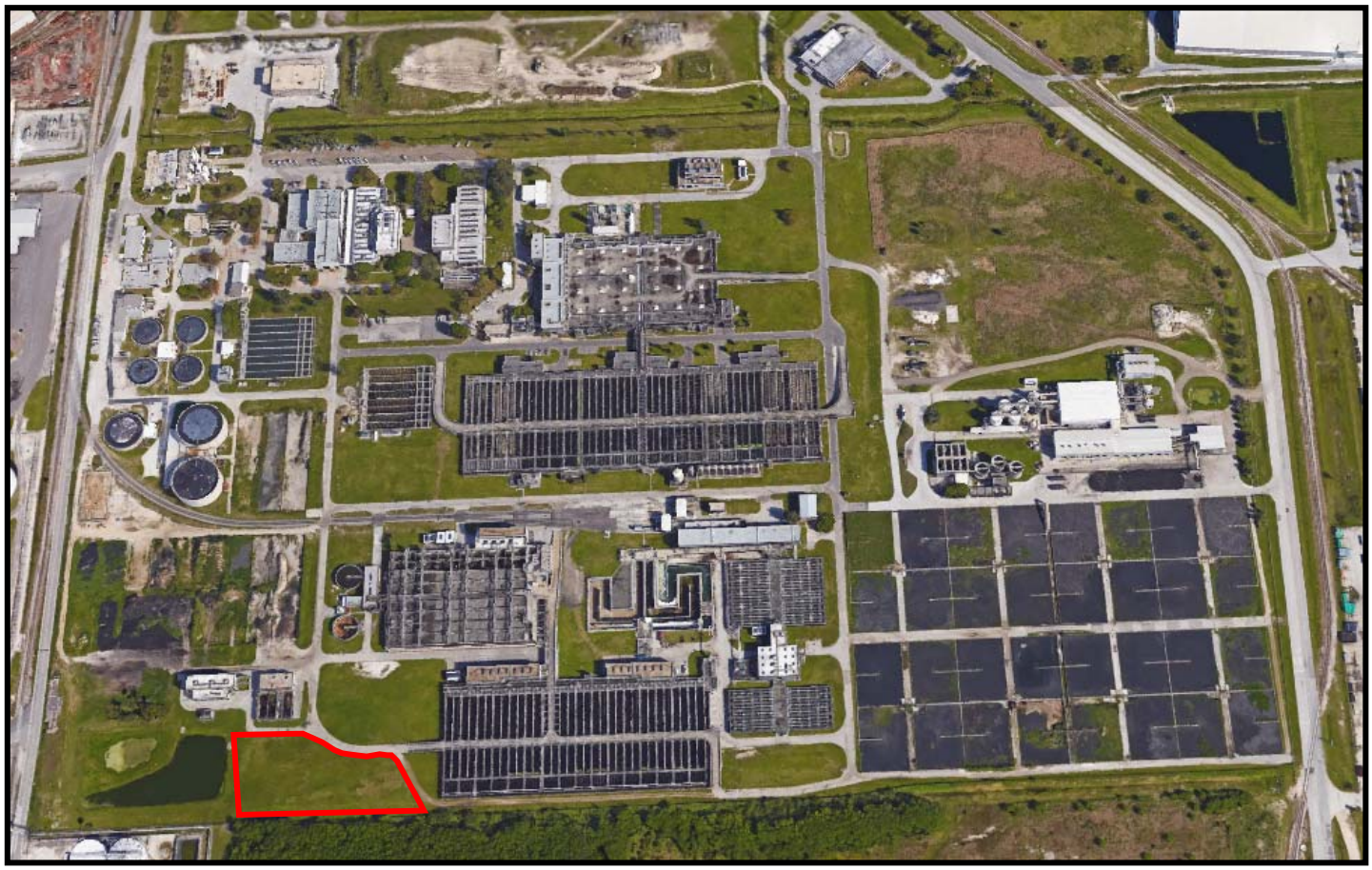

Figure 3 Pilot Wetlands of HFCAWTP Site

Exhibit B
Fee Schedule

Project Number RFQ 15-D-00061, Tampa Augmentation Project - Implementation Program

Tampa Augmentation Project Implementation Program		Carollo					
TASK NUMBER	TASK DESCRIPTION	Total Hours	Labor Costs	Other Direct Costs	Carollo Engineers	Total Subconsultants	Task Total
Task 1 - Project Management		**884**	**$ 182,630**	**$ 750**	**$ 183,380**	**$ 2,000**	**$ 185,380**
1.1	Project Management	810	$ 170,680	$ 600			
1.2	Project Kickoff Meeting	42	$ 6,990	$ 150			
1.3	Data Collection	32	$ 4,960				
Task 2 - Regulatory/ Institutional Analysis		**204**	**$ 33,134**	**$ 600**	**$ 33,734**	**$ 172,423**	**$ 206,157**
2.1	Regulatory Inventory and Overview	44	$ 7,072				
2.2	Site Specific Regulatory Issues	64	$ 10,822	$ 150			
2.3	Project Workshop, Draft, and Final Reports	96	$ 15,240	$ 450			
Task 3 - Stakeholder Involvement & Public Outreach		**310**	**$ 46,870**	**$ 600**	**$ 47,470**	**$ 279,142**	**$ 326,612**
3.1	Outreach Coordination and Team Meetings	310	$ 46,870	$ 600			
3.2	Stakeholder Matrix	0	$ -				
3.3	Research	0	$ -				
3.4	Key Messages	0	$ -				
3.5	Strategic Stakeholder and Public Outreach Plan	0	$ -				
3.6	Informational Materials/Public Outreach Activities	0	$ -				
3.7	Public Outreach-District Field Investigations	0	$ -				
3.8	Rapid Response Plan	0	$ -				
3.9	Media and Social Media	0	$ -				
Task 4 - Hydrogeologic & Environmental Investigations		**330**	**$ 50,840**	**$ 450**	**$ 51,290**	**$ 677,123**	**$ 728,413**
4.1	Alternative No. 1 Wetlands & RIBs on District Property Investigations	55	$ 8,515				
4.2	Alternative No. 2 Recharge/Recovery Alternative	65	$ 10,195	$ 150			
4.3	Project Meeting, Draft, & Final Reports	210	$ 32,130	$ 300			
Task 5 – Route Analysis		**112**	**$ 17,710**	**$ 300**	**$ 18,010**	**$ 148,006**	**$ 166,016**
5.1	Data Collection & Hydraulic Analysis	34	$ 5,392				
5.2	Alternative No. 1 Routing Analysis - Update of previous Investigations	2	$ 486				
5.3	Alternative No. 2 Routing Analysis - Pipeline Route Study from HCFAWTP to the vicinity of Roger's Park	2	$ 486				
5.4	Routing Analysis Draft & Final Reports	74	$ 11,346	$ 300			
Task 6 – Review of the HFCAWTP and TAP Storage and Pumping Req		**990**	**$ 154,870**	**$ 1,500**	**$ 156,370**	**$ 93,559**	**$ 249,929**
6.1	Preliminary Design Investigations	380	$ 59,200	$ 600			
6.2	Direct Potable Reuse Considerations	380	$ 61,900	$ 600			
6.3	Project Meeting, Draft, & Final Reports	230	$ 33,770	$ 300			
Task 7 - Recharge/ Recovery Permitting		**130**	**$ 22,000**	**$ 1,440**	**$ 23,440**	**$ 213,840**	**$ 237,280**
7.1	Recharge/Recovery Feasibility Study	60	$ 9,550	$ 150			
7.2	UIC Permit Application	40	$ 7,440	$ 990			
7.3	Water Use Permit Considerations	30	$ 5,010	$ 300			
Task 8 - Other Investigations		**306**	**$ 42,678**	**$ 900**	**$ 43,578**	**$ 445,269**	**$ 488,847**
8.1	Wetlands Pilot Study	95	$ 13,175	$ 600			
8.2	Draft & Final Reports for the Wetlands Pilot Study	36	$ 5,998	$ 150			
8.3	Ancillary Data Collection & Analysis	175	$ 23,505	$ 150			
Task 9 - Alternatives Analysis Report & Implementation Plan		**802**	**$ 121,528**	**$ 1,050**	**$ 122,578**	**$ 151,270**	**$ 273,848**
9.1	Summary of Results	270	$ 35,950				
9.2	Stormwater Conveyance Systems	172	$ 25,618	$ 300			
9.3	Ground Water Modeling & Yield Assessment	30	$ 5,450				
9.4	Feasibility Analysis	210	$ 33,030	$ 450			
9.5	Project Workshop, Draft, and Final Report	120	$ 21,480	$ 300			
	Carollo Engineers - Tasks 1 through 9	4068	**$ 672,260**	**$ 7,590**	**$ 679,850**		***$ 679,850***
	Subconsultant Costs Tasks 1 through 9 - SLBE/WMBE Firms						***$ 255,580***
	Percent Participation Tasks 1 through 9						**8.9%**
	Subconsultant Costs - Non SLBE/WMBE Firms Tasks 1 through 9						***$ 1,927,052***
	Subconsultant Costs Tasks 1 through 9						***$ 2,182,632***
	Project Costs Tasks 1 through 9						**$ 2,862,482**

Excluded from services on this Exhibit

Task 10 - Optional Tasks							**Task Total**
10.1	Additional Public Outreach	90	$ 13,400	$ 300	$ 13,700		$ 73,664
10.2	Additional Survey	102	$ 14,556	$ 300	$ 14,856		$ 54,856
10.3	Additional Water Quality Analysis	360	$ 55,060	$ 640	$ 55,700		$ 215,700
10.4	Pilot RIB System	352	$ 51,516	$ 640	$ 52,156		$ 549,715
	TOTALS	904	**$ 134,532**	**$ 1,880**	**$ 136,412**		***$ 893,935***

* Tasks will be invoiced on a percent complete basis. Hours listed are solely for the purpose of establishing a cost per task.

Compensation: For performing the services identified within Exhibit A, an upset limit amount of $2,862,482 has been established as the fee for the work described. Invoices will be submitted monthly.

CITY OF TAMPA INSURANCE REQUIREMENTS

During the life of the award/contract the Awardee/Contractor shall provide, pay for, and maintain insurance with companies authorized to do business in Florida, with an A.M. Best rating of B+ (or better) Class VII (or higher), or otherwise be acceptable to the City if not rated by A.M. Best. All insurance shall be from responsible companies duly authorized to do business in the State of Florida.

All commercial general liability insurance policies (and Excess or Umbrella Liability Insurance policies, if applicable) shall provide that the City is an additional insured as to the operations of the Awardee/Contractor under the award/contract including the additional insured endorsement, the subrogation wavier endorsement, and the Severability of Interest Provision. In lieu of the additional named insured requirement, if the Awardee/Contractor's company has a declared existing policy which precludes it from including additional insureds, the City may permit the Contractor to purchase an Owners and Contractors Protective Liability policy. Such policy shall be written in the name of the City at the same limit as is required for General Liability coverage. The policy shall be evidenced on an insurance binder which must be effective from the date of issue until such time as a policy is in existence and shall be submitted to the City in the manner described below as applicable to certificates of insurance.

The insurance coverages and limits required must be evidenced by a properly executed Acord 25 Certificate of Insurance on form or its equivalent. Each Certificate must be personally manually signed by the Authorized Representative of the insurance company shown in the Certificate with proof that he/she is an authorized representative thereof. Thirty days' written notice must be given to the City of any cancellation, intent not to renew, or reduction in the policy coverages, except in the application of the aggregate liability limits provisions. Should any aggregate limit of liability coverage be reduced, it shall be immediately increased back to the limit required by the contract. The insurance coverages required herein are to be primary to any insurance carried by the City or any self-insurance program thereof.

The following coverages are required:

A. Commercial General Liability Insurance shall be provided on the most current Insurance Services Office (ISO) form or its equivalent. This coverage must be provided to cover liability arising from premises and operations, independent contractors, products and completed operations, personal and advertising injury, contractual liability, and XCU exposures (if applicable). Completed operations liability coverage shall be maintained for a minimum of one-year following completion of work. The amount of Commercial General Liability insurance shall not be less than the amount specified.

(a) $1,000,000 per occurrence and a $2,000,000 general aggregate for projects valued at $2,000,000 or less. General aggregate limit for projects over that price shall equal or exceed the price of the project. An Excess or Umbrella Liability insurance policy can be provided to meet the required limit. Risk Management may be contacted for additional information regarding projects of this nature.

B. Automobile Liability Insurance shall be maintained in accordance with the laws of the State of Florida, as to the ownership, maintenance, and use of all owned, non-owned, leased, or hired vehicles. The amount of Automobile Liability Insurance shall not be less than the amount specified.

(a) $500,000 combined single limit each occurrence bodily injury & property damage- for projects valued at $100,000 and under

(b) $1,000,000 combined single limit each occurrence bodily injury & property damage – for projects valued over $100,000

C. Worker's Compensation and Employer's Liability Insurance shall be provided for all employees engaged in the work under the contract, in accordance with the Florida Statutory Requirements. The amount of the Employer's Liability Insurance shall not be less than:

(a) $500,000 bodily injury by accident and each accident, bodily injury by disease policy limit, and bodily injury by disease each employee – for projects valued at $100,00 and under
(b) $1,000,000 bodily injury by accident and each accident, bodily injury by disease policy limit, and bodily injury by disease each –for projects valued over $100,000

D. Excess Liability Insurance or Umbrella Liability Insurance may compensate for a deficiency in general liability, automobile, or worker's compensation insurance coverage limits. If the Excess or Umbrella policy is being provided as proof of coverage, it must name the City of Tampa as an additional insured **(IF APPLICABLE).**

E. Builder's Risk Insurance, specialized policy designed to cover the property loss exposures that are associated with construction projects. The amount of coverage should not be less than the amount of the project. **(IF APPLICABLE).**

F. Installation Floater- a builder's risk type policy that covers specific type of property during its instillation, is coverage required for highly valued equipment or materials such as compressors, generators, or other machinery that are not covered by the builder's risk policy **(IF APPLICABLE).**

G. Longshoreman's & Harbor Worker's Compensation Act/Jones Act coverage shall be maintained for work being conducted upon navigable water of the United States. The limit required shall be he same limit as the worker's compensation/employer's liability insurance limit **(IF APPLICABLE).**

H. Professional Liability shall be maintained against claims of negligence, errors, mistakes, or omissions in the performance of the services to be performed and furnished by the Awaradee/Contractor or any of its subcontractors when it acts as a DESIGN PROFESSIONAL. The amount of coverage shall be no less than amount specified **(IF APPLICABLE).**

(a) $1,000,000 per incident and general aggregate. Note all claims made policies must provide the date of retroactive coverage.

The City may waive any or all of the above referenced insurance requirements based on the specific nature of goods or services to be provided under the award/contract.

ADDITIONAL INSURED - The City must be included as an additional insured by on the general and (Excess or Umbrella liability policies) if applicable. Alternatively, the Contractor may purchase a separate owners protective liability policy in the name of the City in the specified amount as indicated in the insurance requirements.

CLAIMS MADE POLICIES - If any liability insurance is issued on a claims made form, Contractor agrees to maintain uninterrupted coverage for a minimum of one year following completion and acceptance of the work either through purchase of an extended reporting provision, or through purchase of successive renewals with a retroactive date not later than the beginning of performance of work for the City. The retroactive date must be provided for all claims made policies.

CANCELLATION/NON-RENEWAL - Thirty (30) days written notice must be given to the City of any cancellation, intent to non-renew or material reduction in coverages (except aggregate liability limits). However, ten (10) days notice may be given for non-payment of premium. Notice shall be sent to the City of Tampa Department of Public Works, 306 E. Jackson Street, Tampa, FL 33602.

NUMBER OF POLICES - General and other liability insurance may be arranged under single policies for the full amounts required or by a combination of underlying policies with the balance provided by an excess or umbrella liability insurance policy.

WAIVER OF SUBROGATION - Contractor waives all rights against City, its agents, officers, directors and employees for recovery of damages to the extent such damage is covered under the automobile or excess liability policies.

SUBCONTRACTORS - It is the Contractor's responsibility to require all subcontractors to maintain adequate insurance coverage.

PRIMARY POLICIES - The Contractor's insurance is primary to the City's insurance or any self insurance program thereof.

RATING - All insurers shall be authorized to do business in Florida, and shall have an A.M. Best rating of B+ (or better), Class VII (or higher), or otherwise be acceptable to the City if not rated by A.M. Best.

DEDUCTIBLES - The Contractor is responsible for all deductibles. In the event of loss which would have been covered but for the presence of a deductible, the City may withhold from payment to Contractor an amount equal to the deductible to cover such loss should full recovery not be obtained under the insurance policy.

INSURANCE ADJUSTMENTS - These insurance requirements may be increased, reduced, or waived at the City's sole option with an appropriate adjustment to the Contract price.

Document updated on 12/22/2009 by RLD (Risk Management)

Instructions for completing The Sub-(Contractors/Consultants/ Suppliers) Solicited Form (Form MBD-10)

This form must be submitted with all bids or proposals. All subcontractors (regardless of ownership or size) solicited and subcontractors from whom unsolicited quotations were received must be included on this form. The instructions that follow correspond to the headings on the form required to be completed.Note: Ability or desire to self-perform all work shall not exempt the prime from Good Faith Efforts when Goal has been established.

- **Contract No.** This is the number assigned by the City of Tampa for the bid or proposal.
- **Contract Name.** This is the name of the contract assigned by the City of Tampa for the bid or proposal.
- **Contractor Name.** The name of your business.
- **Address.** The physical address of your business.
- **Federal ID.**FIN. A number assigned to your business for tax reporting purposes.
- **Phone.** Telephone number to contact business.
- **Fax.** Fax number for business.
- **Email.** Provide email address for electronic correspondence.
- **No Firms were contacted/solicited for this contract.** Checking the box indicates that a pre-determined Subcontract Goal was not set by the City resulting in your business not using subcontractors and will self-perform all work. If during the performance of the contract you employ subcontractors, the City must pre-approve subcontractors. Use of the "Sub-(Contractors/Consultants/Suppliers) Payments" form must be submitted with your invoices. Note: Certified SLBE or WMBE firms bidding as Primes are not exempt from outreach and solicitation of subcontractors.
- **No Firms were contacted because.** Provide brief explanation why no firms were contacted/solicited.
- **See attached documents.**Check box, if after you have completed the DMI Form in its entirety, you are providing any additional documentation relating to the form.All DMI data not submitted on the MBD Form-10 must be in the same format and have all requested data from MBD Form-10 included.

The following instructions are for information of any and all subcontractors solicited.

- **"S" = SLBE, "W" = WMBE.** Enter "S" for firms Certified by the City as Small Local Business Enterprises and/or "W" for firms Certified by the City as Women/Minority Business Enterprise.
- **Federal ID.**FIN. A number assigned to a business for tax reporting purposes. This information is critical in proper identification of the subcontractor.
- **Company Name, Address, Phone & Fax**. Provide company information for verification of payments.
- **Type of Ownership.** Indicate the Ethnicity and Gender of the owner of the subcontracting business.
- **Trade, Services, or Materials** Indicate the trade, service, or material provided by the subcontractor. NIGP codes are listed at top section of document.
- **Contact Method L=letter, F=fax, E=Email, P=Phone.** Indicate with letter the method of soliciting for bid.
- **Quote or Resp. (response) Rec'd (received) Y/N**. Indicate "Y" Yes if you received a quotation or if you received a response to your solicitation. Indicate "N" No if you received no response to your solicitation from the subcontractor.

If any additional information is required or you have any questions, you may call the Minority Business Development Office at (813) 274-5522.

Page 3 of 4 DMI – Solicited/Utilized
City of Tampa –DMI Schedule of Sub-(Contractors/Consultants/Suppliers) to be Utilized
(FORM MBD-20)

Contract No.: 15-D-00061 Contract Name: Tampa Augmentation Project - Implementation Program
Contractor Name: Carollo Engineers, Inc. Address: 10117 Princess Palm Ave., Ste. 340, Tampa, FL 33610
Federal ID: 86-0899222 Phone: (813) 888-9572 Fax: N/A Email: LElliott@carollo.com

[✓] See attached documents.
[ ] No Subcontracting (of any kind) will be performed on this contract.

NIGP Code General Categories: Buildings = 909, General = 912, Heavy = 913, Trades = 914, Architects = 906, Engineers & Surveyors = 925, Supplier = 912-77

This DMI Schedule Must Be Submitted with the Bid or Proposal (Do Not Modify This Form)

Enter "S" for firms Certified as Small Local Business Enterprises, "W" for firms Certified as Women/Minority Business Enterprise

S = SLBE W=WMBE Federal ID	Company Name Address Phone & Fax	Type of Ownership (F=Female M=Male) BF BM = African Am. HF HM = Hispanic Am. AF AM = Asian Am. NF NM = Native Am. CF CM = Caucasian	Trade, Services, or Materials NIGP Code Listed above	Amount of Quote. Letter of Intent if available.	Percent of Scope/Contract %
N/A 98-0425935	**GHD Services, Inc.** 4019 E Fowler Ave., Tampa, FL 33617 Phone: (813) 257-0618 / Fax: None	CM	925	N/A	12.4%
N/A 59-2387450	**The Haskell Company** 111 Riverside Ave., Jacksonville, FL 32202 Phone: (904) 791-4662 / Fax: (904) 475-7728	Employee Owned	912	N/A	2.8%
S, W 20-2853511	**Lane Engineering, Inc.** 730 Kilgore Road, Plant City, FL 33567 Phone: (813) 298-0343 / Fax: (866) 458-2316	CF	925	N/A	2.5%
N/A 59-2543820	**SDI Environmental Services, Inc.** 10014 N Dale Mabry Hwy., Ste. 202, Tampa, FL 33618 Phone: (813) 961-1935 / Fax: None	M	961-74	N/A	10.4%
N/A 88-0285918	**Katz & Associates, Inc.** 5440 Morehouse Dr., Ste. 1000, San Diego, CA 92121 Phone: (858) 452-0031 / Fax: None	CF	912	N/A	4.9%
N/A 52-0963531	**Johnson, Mirmiran & Thompson (JMT)*** 1104 East Twiggs Street, Suite 100, Tampa, Florida 33602 Phone: (813) 314-0314 / Fax: (813) 314-0345	N/A	925	P	1.5%
N/A 47-4487476	**HydroGeo Consulting, LLC** 11307 Hoot Owl Court, Riverview, FL 33569 Phone: 813-340-3887 / Fax: None	CM	925	N/A	2.3%

Total Subcontract/Supplier Utilization $ 2,182,632
Total SLBE Utilization $ 230,580
Total WMBE Utilization $ 25,000
Percent SLBE Utilization of Total Bid/Proposal Amt. 7.9 % Percent WMBE Utilization of Total Bid/Proposal Amt. 0.9 %

It is hereby certified that the following information is a true and accurate account of utilization for sub-contracting opportunities on this contract. ***This form must be completed and submitted with the bid or proposal.*** Modifying or failing to sign DMI forms may result in Non-Compliance and/or deemed non-responsive.

Signed: David M Ammerman Name/Title: David Ammerman, Vice President Date: 04/20/16

MBD 20 rev. 02/01/13

Note: Detailed Instructions for completing this form are on the next page.

*JMT, formally Bayside Engineering, Inc. was acquired on January 18, 2016 and is no longer an MBE firm.

CONTINUATION

Page 3 of 4DMI – Solicited/Utilized
City of Tampa –DMI Schedule of Sub-(Contractors/Consultants/Suppliers) to be Utilized
(FORM MBD-20)

Contract No.: 15-D-00061 Contract Name: Tampa Augmentation Project - Implementation Program
Contractor Name: Carollo Engineers, Inc. Address: 10117 Princess Palm Ave., Ste. 340, Tampa, FL 33610
Federal ID: 86-0899222 Phone: (813) 888-9572 Fax: N/A Email: LElliott@carollo.com

[✓] See attached documents.
[ ] No Subcontracting (of any kind) will be performed on this contract.

NIGP Code General Categories: Buildings = 909, General = 912, Heavy = 913, Trades = 914, Architects = 906, Engineers & Surveyors = 925, Supplier = 912-77

This DMI Schedule Must Be Submitted with the Bid or Proposal (Do Not Modify This Form)

Enter "S" for firms Certified as Small Local Business Enterprises, "W" for firms Certified as Women/Minority Business Enterprise

S = SLBE W=WMBE / Federal ID	Company Name Address Phone & Fax	Type of Ownership (F=Female M=Male) BF BM = African Am. HF HM = Hispanic Am. AF AM = Asian Am. NF NM = Native Am. CF CM = Caucasian	Trade, Services, or Materials NIGP Code Listed above	Amount of Quote. Letter of Intent if available.	Percent of Scope/Contract %
N/A 51-0528641	**Ecological Consulting Solutions, Inc.** 235 N Hunt Club Blvd., Ste. 202, Longwood, FL 32779 Phone: (407) 869-9434 / Fax: None	CM	918-43 926	N/A	0.3%
N/A 46-5766467	**AquaSciTech Consulting, PLLC** P.O. Box 725, Gotha, FL 34734 Phone: (407) 756-5396 / Fax: None	CM	925	N/A	4.9%
N/A 36-1164980	**Greeley and Hansen, LLC** 1715 N Westshore Blvd., Suite 464, Tampa, FL 33607 Phone: (813) 873-3666/ Fax: (813) 873-3637	CM	906 925	N/A	4.2%
N/A 20-4554999	**ASRus, LLC** 13329 N Armenia Avenue, Tampa, FL 33613 Phone: (813) 264-9100 / Fax: None	AF	925	N/A	13.6%
N/A 59-3054850	**DB Environmental Laboratories, Inc.** 365 Gus Hipp Blvd., Rockledge, FL 32955 Phone: (321) 639-4896 / Fax: None	CM	918-43 926	N/A	4.7%
S, W 14-1993874	**Vistra Communications, LLC** 15436 N Florida Ave., Ste. 160, Tampa, FL 33613 Phone: (813) 961-4700 / Fax: None	BM	912	N/A	4.0%
N/A 90-0293482	**Huss Drilling, Inc.** 35920 State Road 52, Dade City, FL 33525 Phone: (352) 567-9500 / Fax: (352) 567-6646	CM	914	N/A	5.3%

Total Subcontract/Supplier Utilization $ 2,182,632
Total SLBE Utilization $ 230,580
Total WMBE Utilization $ 25,000
Percent SLBE Utilization of Total Bid/Proposal Amt. 7.9 % Percent WMBE Utilization of Total Bid/Proposal Amt. 0.9 %

It is hereby certified that the following information is a true and accurate account of utilization for sub-contracting opportunities on this contract. ***This form must be completed and submitted with the bid or proposal.*** Modifying or failing to sign DMI forms may result in Non-Compliance and/or deemed non-responsive.

Signed: _____ Name/Title: David Ammerman, Vice President Date: 04/20/16

MBD 20 rev. 02/01/13

Note: Detailed Instructions for completing this form are on the next page.

Page 3 of 4 DMI – Solicited/Utilized
City of Tampa –DMI Schedule of Sub-(Contractors/Consultants/Suppliers) to be Utilized
(FORM MBD-20)

Contract No.: 15-D-00061 Contract Name: Tampa Augmentation Project - Implementation Program
Contractor Name: Carollo Engineers, Inc. Address: 10117 Princess Palm Ave., Ste. 340, Tampa, FL 33610
Federal ID: 86-0899222 Phone: (813) 888-9572 Fax: N/A Email: LElliott@carollo.com

[✓] See attached documents.
[ ] No Subcontracting (of any kind) will be performed on this contract.

NIGP Code General Categories: Buildings = 909, General = 912, Heavy = 913, Trades = 914, Architects = 906, Engineers & Surveyors = 925, Supplier = 912-77

This DMI Schedule Must Be Submitted with the Bid or Proposal (Do Not Modify This Form)

Enter "S" for firms Certified as Small Local Business Enterprises, "W" for firms Certified as Women/Minority Business Enterprise

S = SLBE W=WMBE / Federal ID	Company Name Address Phone & Fax	Type of Ownership (F=Female M=Male) BF BM = African Am. HF HM = Hispanic Am. AF AM = Asian Am. NF NM = Native Am. CF CM = Caucasian	Trade, Services, or Materials NIGP Code Listed above	Amount of Quote. Letter of Intent if available.	Percent of Scope/Contract %
S/W 59-3517239	**REA Remedial Solutions, LLC** P.O. Box 2281, Valrico, FL 33595 Phone: (813) 657-0747 / Fax: (813) 657-0767	BM	925/914	E	1.6%
W 65-0868970	**Electrical Design Associates, Inc.** 3001 N Rocky Point Drive E, Suite 200 Phone: (813) 367-3536 / Fax: None	HF	925	P	0.9%

Total Subcontract/Supplier Utilization $ 2,182,632
Total SLBE Utilization $ 230,580
Total WMBE Utilization $ 25,000
Percent SLBE Utilization of Total Bid/Proposal Amt. 7.9 % Percent WMBE Utilization of Total Bid/Proposal Amt. 0.9 %

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Signed: David K Name/Title: David Ammerman, Vice President Date: 04/20/16

MBD 20 rev. 02/01/13

Note: Detailed Instructions for completing this form are on the next page.