

BOARD OF COUNTY COMMISSIONERS

DATE: October 25, 2011

AGENDA ITEM NO. 15

Consent Agenda ☐

Regular Agenda ☒

Public Hearing ☐

County Administrator's Signature:

[Handwritten signature]
for REC

Subject:

Approval of Finalized Agreement - South Cross Bayou Reclamation Facility UV Disinfection System and Related Improvements
Contract No. 101-0186-NC(AM)

Department:

Department of Environment & Infrastructure / Purchasing

Staff Member Responsible:

John Wesley White / Joe Lauro

Recommended Action:

I RECOMMEND THE BOARD OF COUNTY COMMISSIONERS (BOARD) APPROVE THE FINAL NEGOTIATED AGREEMENT WITH PARSONS WATER & INFRASTRUCTURE, INC. (PARSONS), TAMPA, FLORIDA FOR SOUTH CROSS BAYOU RECLAMATION FACILITY UV DISINFECTION SYSTEM AND RELATED IMPROVEMENTS.

IT IS FURTHER RECOMMENDED THE CHAIRMAN SIGN THE AGREEMENT AND THE CLERK ATTEST.

Summary Explanation/Background:

A final agreement has been negotiated by Department of Environment and Infrastructure (DEI) staff with Parsons and is now being presented to the Board for consideration. The amount of negotiated services with Parsons is \$2,713,475.00 for basic services, and \$170,980.00, for contingency services for a total of \$2,884,455.00. The agreement will be for a period of three (3) years from the date of execution. If additional services are required during the contract period, such service will be presented to the Board as an amendment to the agreement.

On July 26, 2011, the Board approved the ranking of firms and authorized staff to negotiate with the number one ranked firm, Parsons, to perform preliminary engineering, final design and construction services for improvements to the South Cross Bayou Water Reclamation Facility. More specifically, the Board approved the ranking of firms to obtain the services of a consultant to provide review and validation of existing information, and related piping, mechanical, electrical, structural, and other miscellaneous work necessary to complete the project. The contract is a result of the County's receipt of a consent order from Florida Department of Environmental Protection mandating the County to reduce certain disinfection byproduct concentrations in effluent discharged to Joe's Creek.

Fiscal Impact / Cost / Revenue Summary:

The budget estimate for this project is \$22,930,000.00. The negotiated cost for services to be provided by Parsons is \$2,884,455.00.

| | |
|------------------------------|------------------------|
| Estimated Engineering Cost: | \$ 2,884,455.00 |
| Estimated Construction Cost: | <u>\$20,045,545.00</u> |
| Total | \$22,930,000.00 |

Exhibits/Attachments:

Contract Review
Finalized Agreement
Project Financial Overview

Fiscal Impact/Cost/Revenue Summary:

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Estimated Engineering Cost: \$ 2,884,455.00

Estimated Construction Cost: \$20,045,545.00

Total \$22,930.000.00

Exhibits/Attachments Attached:

Contract Review

Finalized Agreement

Project Financial Overview



PURCHASING DEPARTMENT
CONTRACT REVIEW TRANSMITTAL

CATS
NO.:

38118

PROJECT: FINALIZED AGREEMENT FOR: South Cross Bayou Water Reclamation Facility UV Disinfection System and Related Improvements

BID NUMBER: 101-0186-NC (AM)

REQ. NUMBER:

TYPE: ☒ Purchase Contract ☐ Other: ☐ Construction-Less than \$100,000 ☐ One Time

In accordance with the policy guide for Contract Administration, the attached documents are submitted for review and comment. Upon completion of review, complete Contract Review Transmittal and forward to next Review Authority listed. Please indicate suggested changes by revising, in RED, the appropriate section of the document reflecting the exact wording of the change.

RISK MANAGEMENT: PLEASE REVIEW INSURANCE REQUIREMENTS LISTED IN FINALIZED AGREEMENT
This is not an annual contract.

| REVIEW SEQUENCE | REVIEW AUTHORITY | REVIEW DATE | REVIEW SIGNATURE | COMMENTS (Attach Separate page if necessary) | COMMENTS INCORPORATED |
|---|--|--------------------|------------------|--|---|
| 1. | Purchasing Dept. Joseph Lauro, Director Amelia McFarlane, Sr. PA | 10/3/11 10/4/11 | Amelia McFarlane | p32 - construction inspection Please respond to Joe's comment | Amelia McFarlane |
| 2. | Requesting Dept.: RW DET Bill Harrington/ Jim Hall | 10/4/11 10/4/11 | Bill Harrington | | |
| Using Dept please provide below information: <input type="checkbox"/> Yes, funding for this requisition is using grant Funding. <input type="checkbox"/> No, funding for this requisition is not using grant Funding. If grant funding is being used you must provide Purchasing with the exact clauses that need to be on attached document. | | | | | |
| 3. | Risk Management Attn: GINNY Holscher (Check applicable box at right) | 10/4/11 | Ginny Holscher | Please have Risk Review Construction bid insurance Requirements as well as any equipment purchases when they are available | X HIGH RISK NOT HIGH RISK |
| 4. | BCC Finance Attn: Cassandra Williams | 10/5/11 | CBW | | Risk Review Insurance upon initial cost Review of RFP |
| 5. | Asst. County Administrator Larry Arrington/ John Wesley White | 10/6/11 | LA | | |
| 6. | Asst. County Administrator/Chief of Staff Attn: Mark Woodard | 10/6/11 | Mark Woodard | | |
| 7. | Legal Attn: Michelle Wallace Jed Morrissey | 10/6/11 | Michelle Wallace | Purchasing and DEJ OK with | OK - am |

RETURN ALL DOCUMENTS TO PURCHASING LET?

Make all inquiries to: Amelia McFarlane, CPPB Sr. Procurement Analyst at Extension 43149

In order to meet the required schedule, please return your requirements to Purchasing by: 3/29/2011

Revise 08/2010

TENTATIVE DATES

Legal Ad-BID/RFP Mail Out: N/A

BID/RFP Opening: N/A

Board/County Admin/Purchasing Director Approval: TBD

Thought we stopped this practice?
was consultant to put up a completion of each
AS DISCUSSED
NEW PRACTICE
IMPLEMENTED
ACROSS THIS

PROFESSIONAL SERVICES NON-CONTINUING SERVICES AGREEMENT

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**SECTION 1
INTENT OF AGREEMENT**

**AGREEMENT FOR PROFESSIONAL ARCHITECTURAL/ENGINEERING SERVICES FOR SOUTH
CROSS BAYOU WATER RECLAMATION FACILITY UV DISINFECTION SYSTEM AND RELATED
IMPROVEMENTS**

THIS AGREEMENT, entered into on the ____ day of _____, 2011, between PINELLAS COUNTY, a political subdivision of the State of Florida, hereinafter referred to as the COUNTY, represented by its Board of County Commissioners, and Parsons Water & Infrastructure, Inc., with offices in Pasadena, California, hereinafter referred to as the CONSULTANT.

WITNESSETH, That:

WHEREAS, the COUNTY intends to contract with the CONSULTANT for design and construction administration services for the aforementioned improvements being hereinafter referred to as the PROJECT; and

WHEREAS, the COUNTY desires the CONSULTANT provide PROFESSIONAL ARCHITECTURAL/ENGINEERING SERVICES requisite to the development of the PROJECT; and

WHEREAS, the CONSULTANT has expressed the willingness and ability to provide the aforementioned Services; and

NOW THEREFORE, the COUNTY and the CONSULTANT, in consideration of the mutual covenants hereinafter set forth, agree as follows:

SECTION 2 SCOPE OF PROJECT

2.1 PROJECT DESCRIPTION AND PROFESSIONAL REQUIREMENTS

For the purposes of this Agreement the term PROJECT shall include all areas of proposed improvements, all areas that may reasonably be judged to have an impact on the PROJECT, and all PROJECT development phases and the services and activities attendant thereto. It is not the intent of this Agreement to identify the exact limits or details involved in providing satisfactorily completed PROJECT construction documents. The CONSULTANT shall provide the following professional services to prepare construction plans, specifications, and complete applications for and receive all federal, state, and local permits on behalf of COUNTY as required for construction of the PROJECT. The PROJECT design shall be based on the following data:

The South Cross Bayou Water Reclamation Facility (SCBWRF) ultraviolet (UV) Disinfection System and Related Improvements project ("PROJECT") consists of a new UV disinfection system designed to meet annual average effluent concentration limits for dichlorobromomethane (DCBM) and chlorodibromomethane (CDBM) discharged to Joe's Creek from SCBWRF. The SCBWRF was originally constructed in 1960 with a 15 million gallon per day (mgd) average capacity. In 2004, as part of a separate project Parsons Water & Infrastructure ("CONSULTANT") expanded SCBWRF to an average flow of 33 mgd, with a peak hourly flow of 66 mgd. Effluent from the facility is currently disinfected with chlorine gas, and on average 20-30% of the effluent is discharged via surface water to the Joe's Creek outfall, and the remaining 70-80% (on average) is used as reclaimed water.

In 2010, the COUNTY entered into a consent order with the Florida Department of Environmental Protection (FDEP) that required the surface water discharge from the facility via the Joe's Creek outfall to meet regulatory limits for disinfection byproducts of chlorination by June 30, 2013. Specifically, water discharged to Joe's Creek must contain less than 34 micrograms per liter (ug/L) of CDBM, and less than 22 ug/L of DCBM. Both limits are annual averages based on grab samples collected monthly. These limits apply only to dechlorinated reclaimed water.

Subject to confirmation during the conduct of the engineering services, it is envisioned that the PROJECT will include splitting the flow after the existing denitrification filters, and allowing the majority of filtered effluent to continue to the existing chlorine contact basin with a portion going to a new UV treatment system that will discharge ultimately to Joe's Creek. The new UV disinfection system will reuse the existing basins that were formerly used for the Automatic Backwash (ABW) filters. The PROJECT includes the structural assessment of the ABW filter basins, the selection and support of pre-purchase of UV equipment by the COUNTY, and the design of a new pumping system to discharge to the existing reaeration facility, or a new or modified re-aeration facility and gravity discharge for the UV effluent to Joe's Creek.

The Consultant shall serve as the Engineer of Record and be responsible for completing the final design including Bid documents, and providing construction administration during the expected 12 month project construction phase. The work includes review and validation of existing information, and all related piping, mechanical, electrical, structural, and other miscellaneous work necessary to complete the project on time and within budget. CONSULTANT's Scope of Services is comprised of the following Tasks required to assist Pinellas County in completing the project, and includes complete conceptual design, basis of design report, surveys, design and project delivery contract documents for a new UV disinfection system and related improvements, assistance in acquisition of all necessary permits, services related to construction bidding, and services during construction for the PROJECT.

2.2 PROJECT TASKS

The CONSULTANT will complete the PROJECT in fourteen (14) tasks as described below. Specific services to be provided are described in Section 3.

TASK 1 – PROJECT MANAGEMENT, MEETINGS, AND SCHEDULING
TASK 2 – CONCEPTUAL DESIGN
TASK 3 – BASIS OF DESIGN REPORT (BODR)
TASK 4 – GEOTECHNICAL INVESTIGATION AND MATERIALS TESTING FOR DESIGN
TASK 5 – SURVEYING AND UNDERGROUND UTILITY LOCATES
TASK 6 – FINAL DESIGN
TASK 7 – PERMITTING ASSISTANCE
TASK 8 – UV SYSTEM FINAL DESIGN AND PRE-PURCHASE ASSISTANCE
TASK 9 – BIDDING ASSISTANCE
TASK 10 – CONSTRUCTION ADMINISTRATION AND OFFICE ENGINEERING
TASK 11 – CONSTRUCTION INSPECTION
TASK 12 – FACTORY ACCEPTANCE TEST, LOOP CHECKOUT, AND START-UP ASSISTANCE
TASK 13 – RECORD DRAWINGS, OPERATIONS AND MAINTENANCE (O&M) MANUAL SUPPLEMENT, AND TRAINING
TASK 14 – ASSET MANAGEMENT ASSISTANCE

2.3 CONSULTING RESPONSIBILITIES

- A. It is the intention of the COUNTY that the CONSULTANT is held accountable for its work, including checking and review of plans, and that submittals are complete.
- B. The CONSULTANT shall be responsible for the accuracy of the work and shall promptly correct its errors and omissions without additional compensation. Acceptance of the work by the COUNTY will not relieve the CONSULTANT of the responsibility for subsequent correction of any errors and the clarification of any ambiguities.
- C. The CONSULTANT represents that it has secured or will secure, at its own expense, all personnel necessary to complete this Agreement; none of whom shall be employees of or have any contractual relationship with the COUNTY. Primary liaison with the COUNTY will be through the CONSULTANT'S Project Manager. All of the services required hereunder will be performed by the CONSULTANT or under the CONSULTANT'S supervision, and all personnel engaged in the work shall be fully qualified and shall be authorized or permitted under law to perform such services.
- D. The CONSULTANT shall endorse all reports, calculations, contract plans, and survey data. Services shall be prepared under the direction of an engineer registered in the State of Florida and qualified in the required discipline. Products or services performed or checked shall be signed and sealed by the CONSULTANT'S Florida registered engineer.
- E. The CONSULTANT shall be responsible for the preparation of a PROJECT design schedule, which shows a breakdown of all tasks to be performed, and their relationship in achieving the completion of each phase of work. A bar chart schedule showing overall PROJECT time frames should also be prepared. These schedules must be submitted for COUNTY approval within ten (10) days of the initial PROJECT Notice to Proceed. These schedules will be used to verify CONSULTANT performance in relationship to Fees claimed and to allow the COUNTY'S Project Manager to monitor the CONSULTANT'S efforts. The CONSULTANT shall be responsible for any updates to these schedules and for documenting in writing to the COUNTY any major deviations in the actual versus estimated PROJECT time frames.
- F. The CONSULTANT shall respond, in writing, to all review comments made by the COUNTY, and shall incorporate appropriate design adjustments into the PROJECT, in a timely manner, resulting from the review exchange.

2.4 GENERAL DESIGN CONDITIONS

2.4.1 The CONSULTANT shall coordinate and solicit appropriate input, with the knowledge of the COUNTY.

2.4.2 All design data, plans, and drawings shall be delivered on DVD or CD ROM formatted to DWF or .DWG utilizing AutoCAD unless specific submittal requirements are specified elsewhere in this Agreement and searchable PDF, or other formats as agreed to by CONSULTANT and COUNTY; as well as providing reproducible hard copies of plans and drawings. All specifications and other documents shall be delivered on DVD, or CD ROM, Windows XP and searchable PDF format, as well as the reproducible hard copies.

2.4.3 One (1) original and six (6) copies of all deliverables are required unless specific submittal requirements are specified elsewhere in this Agreement.

2.4.4 The CONSULTANT shall develop acceptable alternates to any and all design recommendations that do not meet industry standards of care, and as design changes are requested by the COUNTY during the project design.

2.5 GOVERNING SPECIFICATIONS REGULATIONS AND PERTINENT DOCUMENTS

The PROJECT shall be designed by the CONSULTANT in accordance with applicable industry standards. The CONSULTANT shall be responsible for understanding and abiding by current knowledge of any laws, ordinances, codes, rules, regulations, standards, guidelines, specifications, or other mandates relevant to the PROJECT or the services to be performed.

SECTION 3 SERVICES TO BE FURNISHED BY THE CONSULTANT

3.1 TASK 1 – PROJECT MANAGEMENT, MEETINGS, AND SCHEDULING

3.1.1 Project Management Plan, Invoices, Quality Assurance/Quality Control (QA/QC), and Project Controls

CONSULTANT shall manage the overall project, prepare miscellaneous correspondence, maintain project documentation, and coordinate the services provided by CONSULTANT's Subconsultants. The CONSULTANT shall manage the overall Project by tracking the CONSULTANT's schedule and budget, checking physical progress against the planned schedule, providing sufficient resources to accomplish scheduled tasks, and completing monthly invoicing to the COUNTY in accordance with the agreement. Each invoice will include a cover letter, signed by the Project Manager, and a description of the project status, services completed during the invoice period, a forecast of work for the next period, and a list of schedule variances describing causative issues and mitigation efforts. This task includes preparation of Parsons internal Project Management Plan, to include:

1. Project description and scope of services
2. Work breakdown structure and dictionary
3. Project team organization, including CONSULTANT, Subconsultants, and COUNTY project team members
4. Project schedule preparation using MS Project or other software acceptable to both CONSULTANT and COUNTY including project milestones with meaningful and agreed upon definitions
5. Progress reporting and invoicing requirements
6. Project communications plan and procedures

7. General project procedures and project specific QA/QC procedures
8. Document Control plan, including project filing system and library setup
9. Public information/public communication procedures
10. Site specific health and safety plan for the CONSULTANT team
11. Site specific sustainability plan

Two (2) hard copies of the Project Management Plan will be provided to the COUNTY, and updated as needed throughout the life of the project. Searchable PDF and MS Word/Excel versions or other original format shall also be provided.

CONSULTANT shall perform intra-discipline, inter-discipline, and QA/QC team reviews at each submittal milestone throughout the duration of the project. These reviews shall be performed on plans, specification, calculations, reports, and technical memorandum prior to COUNTY review. The CONSULTANT's QA/QC plan shall be provided in the Project Management Plan, and results of the completed reviews and responses shall be provided to the COUNTY.

This task also includes preparation and updates of additional project controls system, to include:

1. Use of MS Project or other scheduling software acceptable to CONSULTANT and COUNTY, and provided monthly or more frequently as needed, as described below.
2. Preparation of a master resource-loaded (dollars and manpower) project schedule for project control during design and construction activities.
3. Preparation of monthly invoices and reports to the COUNTY, including planned and actual manpower use, project manpower requirements, actual and projected cash flow requirements for the project.
4. Coordinate with the COUNTY's representative in scheduling updates for the COUNTY's overall program.
5. Report monthly on progress against approved schedule, or more frequently for significant exceptions, to the COUNTY's representative.

Two (2) hard copies of the project schedule, updates, and monthly reports shall be provided to the COUNTY, along with searchable .PDF and MS Word/MS Project/MS Excel or other original format versions.

3.1.2 Initial Project Meeting

CONSULTANT shall prepare for, attend, and document an initial project meeting with the COUNTY. This meeting will serve to confirm County preferences and requirements for the project, establish detailed timelines and action items for completion of the critical path activities, and inform the project team about site safety, security, and constraints. Key members of the CONSULTANT's team and COUNTY's plant and engineering/management staff shall attend the meeting.

3.1.3 Project Coordination

CONSULTANT shall prepare for and attend up to five (5) project coordination meetings with the COUNTY and/or its consultants to review various matters relating to the PROJECT, during the first twelve (12) weeks after notice to proceed, in order to fast track the conceptual design and basis of design tasks described below. Members of the CONSULTANT's team and COUNTY's plant and engineering/management staff shall attend the meetings and/or participate via conference call, as required.

3.1.4 Project Scheduling

The CONSULTANT shall prepare and update a Project schedule monthly for all tasks, subtasks and milestone events relating to the Project. For any schedule changes in the CONSULTANT's tasks, the CONSULTANT will provide the COUNTY with a bulleted memo describing the change and reasons, and will include the memo with the monthly invoice and cover letter.

3.2 TASK 2 – CONCEPTUAL DESIGN

The CONSULTANT shall develop a series of technical memoranda (TM) as described below to address the critical design factors necessary to complete the conceptual design. Work on all TMs shall begin concurrently. Each TM shall take into consideration outcomes and conclusions of the other TMs to ensure a coordinated and compatible conceptual design. For each technical memorandum, the following activities are required:

1. Submittal of draft TM to the COUNTY
2. COUNTY review and comment within 5 working days and in accordance with the agreed schedule, with the expectation the review will be documented as part of the coordination meetings listed in Section 3.1.3
3. Update of the TM to incorporate review comments and submit a final version of the TM to the COUNTY within 10 working days and in accordance with the agreed schedule.

Development of the conceptual design will include the following tasks:

3.2.1 Project Data Request

Considerable information has been made available to the CONSULTANT as listed in the RFP. The CONSULTANT shall review and evaluate available background information, and conduct interviews with Pinellas County staff from Engineering and Operations to confirm existing documentation and to develop a full understanding of the existing operational/system limitations and the ultimate design requirements. As described in this Section 3.2, the CONSULTANT shall identify and comment on issues or opportunities arising from the review, and obtain COUNTY concurrence on any issues related to design criteria or recommendations prior to beginning the final design. CONSULTANT shall prepare an initial data request prior to the Initial Project Meeting described in Section 3.1.2 above. Additional data may be requested as the project proceeds. As data is requested and received, the CONSULTANT shall catalog all information to determine any data gaps. COUNTY shall use best effort to provide all requested data within five (5) working days whenever possible.

3.2.2 TM 1 – UV Transmittance Design Value

CONSULTANT shall prepare a TM establishing the UV Transmittance (UVT) Design Value at 254 nm. Work for this task includes but is not limited to the following:

1. Review and summarize necessary water quality and operational data to identify UVT trends, correlations, gaps, outliers, and operational root causes of UVT trend changes, if any.
2. Establish UVT values cumulative frequency, and determine appropriate percentile values, including those suggested in the National Water Research Institute (NWRI) guidelines and/or other acceptable industry standards.
3. Conduct a broad-level process review to determine opportunities to enhance UVT through basic process change, and through the use of ozone pretreatment. The process review will not include any infiltration or inflow analysis or evaluation of the concentration of chlorides in the plant influent. The process review will be a desktop evaluation that will include the following components:
 - A. Basic headworks efficiency

- B. Biological nutrient removal (BNR) process, including methanol doses and other typical operating set points (such as D.O. set point, mean cell residence time, etc)
- C. Clarification effectiveness and polymer/chemical dosages.
- D. Desktop evaluation of ozone pretreatment to enhance UVT will include site civil, electrical, rough capital and operating costs, and the effect on re-aeration requirements.

Any additional process sampling that may be required will be performed by the COUNTY, or outside laboratory covered by Contingency Services, and will be determined as part of this evaluation. The results of the process review shall be submitted as an Appendix to the TM to facilitate COUNTY's future implementation on other projects.

- 4. Conduct operational review, which will include one day of operations shadowing and interviews with operations staff. The operational review shall aid in determining opportunities to mitigate effects of lower UVTs during wet weather periods such as use of the equalization basin. The results of this review shall be submitted as an Appendix to the TM to facilitate the COUNTY's future implementation on other projects.
- 5. Develop operational protocol based on seasonal treatment coordinating with seasonal UVT values.
- 6. Summarize above data and analysis in draft technical memo with recommendations for process or operational enhancements. Identify preliminary UVT design value.
- 7. Conduct a workshop with the COUNTY to review memo and preliminary UVT value; this will coincide with one of the meetings in Section 3.1.3.
- 8. Meet with FDEP and COUNTY to review preliminary UVT design value and operational protocol, with this meeting included as part of Task 7.
- 9. Incorporate comments from the COUNTY and FDEP and submit final technical memo to FDEP for review.
- 10. Select final UVT value for design.

3.2.3 TM 2 – Structural Assessment of Existing ABW Filter Structure and Equalization (EQ) Tank Blower Building

CONSULTANT shall determine required facility modifications required to the ABW filter basins to install selected UV system and prepare a TM. For the purposes of this Scope of Services provided by CONSULTANT for this PROJECT, it is assumed that the ABW filter basins when modified will be suitable for re-use for this PROJECT and that the design of new basins for the UV lamps and a new re-aeration structure will not be required.

Work for this task includes but is not limited to the following:

- 1. Conduct site visits necessary to examine the existing ABW filter structure and EQ tank blower building to determine space and condition for process, electrical and control equipment.
- 2. Provide coordination for facility investigation including geotechnical and materials testing, structural testing and assessments, and any other required investigations, testing, verification or activities necessary to adequately assess the needs of the final project.
- 3. Prepare a base existing condition site plan in 3D CADD of the existing filter structure based on the information from the Surveyor (Task 5).
- 4. Complete a structural assessment of existing ABW filter structure and EQ tank blower building. The structural assessment will be completed by using the information gained by the Geotechnical Investigation and Materials Testing of Task 4, a desktop evaluation which will include an analysis of existing drawings, visual observations, calculations,

and any other testing, verification or activities necessary to adequately assess the needs of the final project.

5. Determine modification options to install horizontal or vertical UV lamps.
6. Assess options for protective canopy or partial covering over UV equipment
 - A. Develop two design "themes" for the canopies. For each theme, provide a preliminary site plan locating supports and an elevation / section drawing of the canopy and support system.
 - B. Field measure and document the surroundings of the tank
7. Provide two UV equipment lifting crane options.
8. Provide a recommendation for structural layout and lamp covering (i.e., floor/trough covers or elevated canopy).
9. Provide a recommendation for placement of the electrical and controls equipment within the EQ tank blower building.
10. Prepare TM summarizing findings and finalize conceptual design.

3.2.4 TM 3 – Determination of UV Design Criteria

CONSULTANT shall complete the following tasks and summarize in a technical memorandum the following:

1. Examine and verify current hydraulic profile beginning at denitrification filters through chlorine contact tank and reaeration facility taking into consideration possible UV lamp orientations.
2. Determine and confirm current and future design flow through the UV system based upon information obtained from the COUNTY's Monthly Operating Reports and input from the COUNTY.
3. Assess future changes in treated effluent and reclaimed water rules, provide assessment to County, and incorporate future changes into the current design criteria as agreed to by the COUNTY.
4. Coordinate with UV suppliers to identify and evaluate UV systems that meet the needs and requirements of the PROJECT.
5. Develop specific design criteria for UV system including flows, dose, UVT, total suspended solids (TSS), fouling factor, aging factor, performance, lamp reliability, analyzer requirements, backup options, and preliminary control strategies.
6. Determine orientation of UV lamps (vertical or horizontal) by performing both non-economic and economic analysis, including, but not limited to: UV system size and dimensions, UV supplier's experience with reuse systems, power feed requirements, electrical equipment size and requirements, ease of retrofit, structural requirements, O&M requirements (including assessment of SCBWRF staff requirements), sleeve cleaning, lamp replacement, sleeve replacement, pumping, and capital investment.
7. Conduct workshop with COUNTY to review UV alternatives and pre-select UV supplier, based upon the analysis described above in items 1 through 5 above. This workshop will be included with one of the coordination meetings described in Section 3.1.3.

3.2.5 TM 4 – Hydraulic Review and UV Effluent Options

CONSULTANT shall complete the following tasks and summarize in a technical memorandum the following:

1. Re-examine and verify current hydraulic profile beginning at denitrification filters through chlorine contact tank and reaeration facility using the UV lamp orientation selected in TM 3 Determination of UV Design Criteria.
2. Determine requirements for new re-aeration and separate gravity discharge of UV effluent, along with impacts to existing discharge and monitoring requirements.
3. Determine requirements for pumping UV effluent to existing re-aeration structure, including evaluation and testing of existing 24 or 30 inch diameter force main (currently not used) (COUNTY shall conduct all testing of the existing pipes, with opportunity for observation by CONSULTANT), and provide modification recommendations for UV effluent discharge and/or UV effluent reject. Refer to Attachment 1, derived from COUNTY record drawing C-0.3.3, for relevant site configuration.
4. Include life cycle cost analysis for up to five (5) alternative discharge and reject disposal recommendations.

3.2.6 TM 5 – Instruments and Controls

CONSULTANT shall complete the following tasks and summarize in a technical memorandum the following:

1. Integration requirements of the UV controls with the plant's existing supervisory control and data acquisition (SCADA) system.
2. Control hierarchy and amount of monitoring and control at local and remote levels.
3. Type and redundancy needs for analyzers and instrumentation as required for operations and maintenance, and mandated by permit requirements.
4. Preliminary control narrative and sequence of operation for the UV system and reject events.
5. Preliminary SCADA network diagram.
6. CONSULTANT shall include requirements in the specifications for bidding that the Contractor shall provide for the programming and complete integration of the Project SCADA and instrumentation and control systems into the SCBWRF's SCADA and instrumentation and control systems as part of the Contractor's work effort.

3.2.7 TM 6 – Electrical Components and Systems

CONSULTANT shall complete the following tasks and summarize in a technical memorandum the following:

1. Make site visits necessary to gather data and assess existing electrical components.
2. Determine preliminary power requirements and assessment of existing available power.
3. Identify any coordination needs with local electrical company.
4. Determine backup (i.e., uninterrupted power supply [UPS]) and emergency power (i.e., generators) requirements. Including review of Gen Building 1 existing capacity and future capacity with North Train Blowers changed to 480V.
5. Preliminary sizing of electrical equipment for installation in existing building.
6. Prepare preliminary one-line diagram.
7. Address EQ tank blower building modifications, including documentation of existing conditions, base floor plan, and concept for floor plan, wall sections, and exterior elevation changes (as applicable), to accommodate electrical room expansion and modifications.

During the period of preparation of TMs 5 and 6, coordinate with the appropriate County stakeholders to understand their preferences for electrical and I&C equipment and systems integrators.

3.3 TASK 3 – BASIS OF DESIGN REPORT (BODR)

The BODR will consist of the following subtasks, including the preparation of a Draft BODR, a review workshop with the COUNTY to review the Draft BODR, and the preparation of the Final BODR, as described below.

3.3.1 DRAFT BODR

CONSULTANT shall develop a BODR as required for FDEP permitting and for use in support of the Final Design. The following topics will be addressed and based upon the TMs developed in Task 2:

1. Introduction
2. Process Design Criteria, including:
 - A. Preliminary layout of UV system (based on: TM 1 – UV Transmittance Design Value, TM 3 – Determination of UV Design Criteria, and TM 4 – Hydraulic Review and UV Effluent Options)
 - B. ABW structure modifications (based on TM 2 – Structural Assessment of Existing ABW Filter Structure and EQ Tank Blower Building)
 - C. Scope of selective demolition
3. Civil Design Criteria (based on TMs 3 & 4 – Hydraulic Review and UV Effluent Options)
4. Structural Design Criteria (based on: TM 2 – Structural Assessment of Existing ABW Filter Structure and EQ Tank Blower Building)
5. Architectural Design Criteria, including determination of the type of coverage over the UV system lamps (i.e., floor/trough covers or an elevated canopy). The design of the elevated canopy will be a Contingency Service.
6. HVAC Design Criteria
7. Instrumentation and Controls Design Criteria (based on: TM 5 – Instruments and Controls)
8. Electrical Design Criteria (based on: TM 6 – Electrical Components and Systems)
9. Permitting Approach and Environmental Constraints
10. Construction Sequencing and Constraints/Implementation Schedule
11. Preliminary Opinion of Probable Cost and life cycle cost estimate of UV system including discussion and costs for required staff

The BODR includes a set of 30 percent complete plans (see Attachment 2) and outline of the technical specifications. Plans shall include process flow diagram modifications, hydraulic profile modifications, preliminary mechanical and structural layout of the UV system, preliminary P&ID's for the UV system and relevant modifications to existing systems, preliminary civil and yard piping plan, preliminary architectural plan and section for the equalization tank blower building, preliminary electrical single line diagram relevant for the UV system, preliminary electrical plot plan and electrical room modifications.

Three (3) hard copies of the draft BODR and accompanying 30 percent plans, along with searchable .PDF's, .DWF's, and electronic files in original format will be provided.

3.3.2 DRAFT BODR REVIEW WORKSHOP

COUNTY will attend a one day design review workshop session conducted by CONSULTANT upon completion of the draft BODR and provide comments and feedback on the draft BODR for consideration by the CONSULTANT. It is expected that all COUNTY comments and suggestions will be

received within five (5) working days from the workshop in accordance with the agreed upon Project schedule. CONSULTANT shall document the results of the workshop and provide responses in writing to the COUNTY's comments and suggestions within five (5) working days from receipt in accordance with the agreed upon Project schedule. Results and conclusions reached during this workshop and follow up, along with feedback from meetings and discussions with FDEP as described in Task 7, will be used to produce a final BODR and as a basis to begin the Final Design (Section 3.Task 6).

3.3.3 FINAL BODR

Based on the results of the Draft BODR Review Workshop, and subsequent comments received from the COUNTY and/or FDEP within five (5) working days of the workshop, CONSULTANT shall finalize the BODR and shall submit six (6) hard copies of the BODR and accompanying 30 percent plans, along with searchable .PDF's, .DWF's and electronic files in original format will be provided.

3.4 TASK 4 – GEOTECHNICAL INVESTIGATION AND MATERIALS TESTING FOR DESIGN

Geotechnical and materials testing services for the project will consist of investigating the existing structural elements and subsurface conditions at the proposed project location and provide geotechnical and structural engineering recommendations for the proposed modifications. Materials testing services will include compression testing of concrete cores collected from one of the walls, in addition to chemical testing of existing concrete to determine chemical attack, and consolidation and corrosion of reinforcing steel. Test borings will be completed as necessary to obtain information concerning subsurface conditions at the site in order to base engineering estimates and recommendations in each of the following areas:

1. Design parameters required for the foundation systems, including allowable bearing pressures, foundation sizes, foundation levels and soil subgrade treatments. In addition, deep foundation recommendations to resist uplift will be provided, if necessary.
2. General location and description of potentially deleterious materials discovered in the borings which may interfere with construction progress and structure performance, including existing fills or surficial organics.
3. Identification of groundwater levels and estimated Seasonal High Groundwater Table (SHGWT).
4. General construction considerations.
5. Characterization of concrete encountered within the floor and walls of the ABW structure in the areas of the proposed improvements.

In order to meet the preceding objectives, CONSULTANT shall provide the following services:

1. Review published soils and topographic information. This published information will be obtained from the appropriate Florida Quadrangle Map published by the United States Geological Survey (USGS), as well as the Soil Survey of Pinellas County, Florida, published by the United States Department of Agriculture (USDA) Soil Conservation Service (SCS).
2. UV Structure. Execute a program of subsurface exploration consisting of corings, borings, subsurface sampling and field testing. Perform a sufficient number of tests at locations within the floors of the ABW structure. At each test location, concrete cores will be obtained for thickness measurements. Also at these test locations, a Standard Penetration Test (SPT) boring will be performed to a depth on the order of 50 feet below existing site grade. The concrete floor of the ABW structure is anticipated to range from one foot thick for the original base slab to 4.5 feet thick in areas where fill concrete was placed on top of the base.

In addition, obtain concrete core samples in accordance with ASTM C42/C42M along the walls of the ABW structure in the area of the proposed improvements. The cores will be performed in areas accessible by foot from the floor of the ABW structure and two above the floor slab.

3. Perform up to two (2) SPT borings to depths on the order of 30 feet below grade in the area of the proposed discharge structure. Visually classify the samples in the laboratory using the Unified Soil Classification System (USCS) and perform laboratory testing to confirm our visual classification as necessary. Identify soil conditions at each boring location.
4. Collect groundwater level measurements and estimate the SHGWT.
5. Perform petrographic analysis on up to two (2) concrete core samples obtained from the ABW structure. Testing shall be in accordance with ASTM C856. Coordinate with the project structural engineer on selecting samples for the analysis.
6. Perform concrete compressive strength tests on concrete core samples obtained from the ABW structure in accordance with ASTM C42/C42M.
7. Prepare a formal engineering report that summarizes the course of study pursued, the field data generated, subsurface conditions encountered and engineering recommendations in each of the pertinent topic areas.

3.5 TASK 5 – SURVEYING AND UNDERGROUND UTILITY LOCATES

3.5.1 Surveying and Mapping

The Record Drawings will be spot checked for accuracy. This task shall include the following activities:

1. Visible above ground improvements.
2. Elevations on an approximate 50 foot grid or at major grade breaks and floor elevations.
3. Above ground visible piping.
4. Above ground visible utilities will be located and shown.
5. Above ground visible sprinkler system will be located and shown.
6. Obtain rim elevations and inverts of storm and sanitary sewers.
7. Map location of trees (4" diameter breast height or larger).
8. ABW filter mapping of 3 western filter bays in digital format (vertical and horizontal).
9. Elevations will be based on North American Vertical Datum (N.A.V.D.) 88. A conversion to National Geodetic Vertical Datum (N.G.V.D.) 29 will be noted on the survey.
10. Horizontal Datum will be based HARN (HPGN) Florida State Planes, West Zone, US Foot (FLHP-WF).

3.5.2 Subsurface Utility Engineering

This task shall include the following activities:

1. Provide traffic control within the designated work area while designating and locating the subsurface utilities. Traffic control is to be maintained in accordance with applicable standards. Provide safety devices, signs and/or other safety equipment.
2. Utilizing conventional electronic designating equipment together with Ground Penetrating Radar (GPR), designate and mark with paint and/or flags the horizontal location of found underground utilities (larger than 2" in diameter) just west of the automatic backwash filters, as depicted by the area shown on Record Drawing sheet C-0.3.3 (see Attachment 1).
3. Provide a test hole (VVH – verified vertical and horizontal) at the approximate center, if possible, on each found utility line. Approximately 21 test holes are expected to be needed (in asphalt and natural earth) for this task. Description of found utilities to

include utility size and composition if possible, but utility function (water main, force main, reclaimed main, sludge line, etc.) may be unknown. Also provide test holes at the approximate corners of the automatic backwash filter structure (provided vacuum truck access is available) to establish slab elevation.

4. For test holes neatly cut and remove existing pavement or other surface material (not to exceed 225 square inches per cut). Excavate the material through the cut down to the utility in a way that prevents damage to wrappings, coatings or other protective coverings of the utilities (i.e. vacuum/pressure excavations, hand digging, etc.). Backfill and compact with select material around the utility. Provide a restoration of the surface, within the limits of the cut, at the time of the backfill.
5. Survey collected utility information will be used to develop the Civil 3D model.
6. Based upon Engineering considerations including above information and proposed design, CONSULTANT shall provide a Utility Conflict Matrix containing up to 21 potential utility conflicts by appropriate coordinates.
7. Provide traffic control within the designated work area while designating and locating the subsurface utilities. Traffic control is to be maintained in accordance with applicable standards. Provide safety devices, signs and/or other safety equipment.
8. Utilizing the Utility Conflict Matrix described above, survey and pre-stake each of the utility conflicts.
9. Provide a test hole (VVH - verified vertical and horizontal) on the found target utility at each of the pre-staked areas.
10. For test holes neatly cut and remove existing pavement or other surface material (not to exceed 225 square inches per cut). Excavate the material through the cut down to the utility in a way that prevents damage to wrappings, coatings or other protective coverings of the utilities (i.e. vacuum/pressure excavations, hand digging, etc.). Backfill and compact with select material around the utility. Provide a restoration of the surface, within the limits of the cut, at the time of the backfill.

3.6 TASK 6 – FINAL DESIGN

3.6.1 75% and Final Design Submittals

On the basis of the approved BODR, CONSULTANT shall prepare contract documents for the construction of the PROJECT. The contract documents shall include Bid set plans and specifications complete and biddable for construction meeting building code and regulatory requirements. In accordance with applicable industry standard of care, each set of plans for the PROJECT shall be accurate, legible, complete in design, suitable for bidding purposes and drawn to scales acceptable to the COUNTY. The completed plans shall be furnished on reproducible material and in a format which is acceptable to the COUNTY. Construction plans shall be provided in electronic format using AutoCAD, COUNTY standards and formatting and are estimated to include the following 22" x 34" sheets. Refer to Attachment 2 for a preliminary drawing list that depicts the drawings anticipated to be submitted with each submittal, along with approximate status of completion of each drawing. CONSULTANT activities shall include but are not limited to the following:

1. Utilize Autodesk Civil 3D 2012 for civil work and AutoCAD MEP 2011 for the process piping and development of the UV system design in the modified ABW filter basins.
2. CONSULTANT will provide the COUNTY with .PDF, .DWF and original electronic file format as part of the 75 percent design submittal.
3. Submit six (6) sets of 75 percent complete plans and specifications and an update of the probable construction cost to the COUNTY, along with PDF files and original electronic file format.
4. Respond to comments and make revisions to the 75 percent plans and specifications as appropriate.

5. Prepare construction specifications using the COUNTY's standard construction bidding documents (Notice to Bidders, Instructions to Bidders, Bid Forms, Bond Forms, Agreement and General Conditions). Construction technical specifications shall be prepared in COUNTY's adaptation of the Construction Specifications Institute format (2009 or later) and shall comprise the following sections:
 - A. Division 1 – General Requirements
 - B. Division 2 – Existing Conditions
 - C. Division 3 – Concrete
 - D. Division 4 – Masonry
 - E. Division 5 – Metals
 - F. Division 6 – Wood and Plastics
 - G. Division 7 – Thermal and Moisture Protection
 - H. Division 8 – Doors and Windows
 - I. Division 9 – Finishes
 - J. Division 10 – Specialties
 - K. Division 11 – Equipment
 - L. Division 13 – Special Construction
 - M. Division 14 – Conveying Systems
 - N. Division 21 – Fire Suppression
 - O. Division 22 – Plumbing
 - P. Division 23 – HVAC
 - Q. Division 25 – Integrated Automation
 - R. Division 26 – Electrical
 - S. Division 27 – Communications
 - T. Division 31 – Earthwork
 - U. Division 32 – Exterior Improvements
 - V. Division 33 – Utilities
 - W. Division 47 – Water and Wastewater Equipment
6. Submit three (3) hard copy sets of the initial Bid set and specifications to the COUNTY with construction plans, along with .PDF, .DWF, and original electronic format files.
7. Conduct a final design review meeting with COUNTY to ensure comments are understood and will be appropriately incorporated into the plans and specifications, and incorporate final comments into the final Bid set and final specifications.
8. Submit six (6) hard copy sets and original electronic format files of the final Bid set and final specifications to the COUNTY.
9. CONSULTANT will provide the COUNTY with .PDF, .DWF and original electronic format files as part of the final Bid set and final specification submittal.
10. Prepare a final opinion of probable cost for the construction of the project under a bid and general construction contract, and a final opinion of probable cost for equipment pre-purchase as described in a subsequent task. The CONSULTANT shall advise the COUNTY of any adjustments to previous preliminary estimates of construction cost indicated by changes in requirements or general market conditions.

Should construction bids exceed the CONSULTANT's Final Opinion of Probable Construction Cost by more than 10%, the CONSULTANT, at his own expense, shall make all changes and/or corrections to the design, if necessary, to bring the construction budget to within 10% of CONSULTANT's Final Opinion of Probable Construction Cost.

COUNTY will attend up to three (3) on-board reviews at CONSULTANT's Tampa office based on work in progress from 30 to 75 percent completion, with set of "work in progress" .PDF files provided two (2) business days prior to the on-board review.

COUNTY will attend a design review workshop session and provide CONSULTANT with review comments within ten (10) business days of receipt of the 75 percent complete submittal package.

3.7 TASK 7 – PERMITTING ASSISTANCE

The CONSULTANT, in representing the COUNTY assumes the responsibility for filing all the documents required to prepare applications on behalf of the COUNTY, including applications and certified signed and sealed plans and specifications, for the approval of governmental authorities having jurisdiction over the PROJECT. This should be done no later than the ninety percent (90%) completion point of this task.

The CONSULTANT shall, at no additional cost to the COUNTY, make all reasonable and necessary construction plans revisions required to obtain the necessary permit approvals for construction of the PROJECT.

For the purpose of ensuring the timely approval of all permits necessary for the construction of the PROJECT, the CONSULTANT shall schedule the necessary contacts and liaison with all agencies having permit jurisdiction over the PROJECT, and shall furnish, on a timely basis, such plans, data and information as may be necessary to secure approval of the required permits.

CONSULTANT shall identify permits and fees required for the project, with the anticipated permits listed and described herein. It is expected that a United States Army Corps of Engineers (USACE) permit will not be required for the Project and therefore is not included in CONSULTANT's scope of services. The COUNTY will pay all fees for all permits. CONSULTANT shall notify the COUNTY Project Manager a minimum of fifteen (15) working days in advance of permit application submittal of the required fees to allow the preparation of payment of the application fee and shall also provide a copy of the permitting Agency's fee schedule for each permit required. It is assumed that the permitting will not include endangered species permitting, and is not included in the CONSULTANT Scope of Services. The UV system will be pre-validated. Therefore, it is assumed that no pilot testing will be required and is not included in the CONSULTANT Scope of Services.

3.7.1 FDEP Construction Permit

CONSULTANT shall provide the following services:

1. Arrange, prepare agenda for, and conduct one pre-application meeting with FDEP to discuss the requirements for the project's Construction Permit.
2. Following meeting, CONSULTANT shall prepare meeting minutes and submit to FDEP and the COUNTY.
3. Prepare & submit FDEP required documentation including typical FDEP permit to construct.
4. Follow through and respond to Requests for Additional Information (RAI). A maximum of two series of RAIs shall be received and responded to by the CONSULTANT in regard to each permit, unless additional response is required due to CONSULTANT error or omission.
5. Compile all required permitting documentation for submittal to COUNTY (permitting file/notebook) for record

3.7.2 FDEP Operations Protocol, UV Approval and Performance Protocol

CONSULTANT shall provide the following services:

1. Arrange, prepare agenda for, and conduct one preliminary meeting with FDEP to discuss the requirements for the testing, operations, and performance protocol for UV transmittance design value and design flow.

2. Prepare meeting minutes and submit to FDEP and the COUNTY.
3. Coordinate with selected UV equipment manufacturer and FDEP for permitting requirements (UV analyzer, operational & IC protocol, sampling locations, etc.)
4. Based on the review of manufacturer's information, knowledge of the FDEP regulation and mindset for UV disinfection, establish preliminary equipment evaluation criteria and testing protocol. This protocol will be reviewed with the COUNTY and FDEP before being finalized. The review with FDEP shall include dose-response issues, sampling and analysis parameters, duration of test, and minor treatment configuration modifications that may be needed.
5. Based on comments from FDEP and the COUNTY, finalize the protocols.
6. Prepare & submit FDEP required documentation including FDEP required UV equipment approval documentation (sampling protocol, operational protocol, performance test, etc.)
7. Follow through and respond to RAIs. A maximum of two series of RAIs shall be received and responded to by the CONSULTANT, unless additional response is required due to CONSULTANT error or omission.
8. Provide documents and test data for release to place system in operation. This includes the time required during the 15 day performance test.
9. Compile all required permitting documentation for submittal to County (permitting file/notebook) for record.

3.7.3 Pinellas County Building and Development Review Services

CONSULTANT shall provide the following services:

1. Arrange, prepare agenda for, and conduct one pre-application meeting with Pinellas County Building and Development Review Services at the appropriate time to discuss the requirements and costs for local permits.
2. Following meeting, prepare meeting minutes and submit to Building and Development Review Services and the COUNTY.
3. Prepare & submit required documentation including permit application.
4. Follow through and respond to RAIs. Two series of RAIs shall be received and responded to by the CONSULTANT, unless additional response is required due to CONSULTANT error or omission.
5. Compile all required permitting documentation for submittal to COUNTY (permitting file/notebook) for record.

3.8 TASK 8 – UV SYSTEM FINAL SPECIFICATIONS AND PRE-PURCHASE ASSISTANCE

At the completion of the final BODR and review by FDEP, the CONSULTANT shall initiate the preparation of the pre-purchase UV equipment package, with the following subtasks:

1. Review COUNTY front end documents for pre-purchase materials and equipment.
2. Identify up to three recent similar municipal projects to justify limited or sole source procurement.
3. Prepare draft technical specifications.
4. Submit draft technical specifications to COUNTY for review.
5. Incorporate comments into draft specification, and prepare and submit final pre-purchase documents.
6. Attend pre-bid meeting.
7. Respond to questions during bid period.

8. Prepare and issue addenda as required, as agreed with the COUNTY'S Project Manager.
9. Review bids and make recommendation.
10. Provide assistance with preparing required documentation to obtain Board approval.

3.9 TASK 9 – BIDDING ASSISTANCE

The CONSULTANT shall prepare with the COUNTY'S assistance the necessary bidding information, bidding forms, the conditions of the contract, and the form of agreement between the COUNTY and the Contractor. The CONSULTANT also, shall bear the cost of two (2) complete sets of documents (plans and specifications) which shall be signed and sealed by the CONSULTANT as original record sets for the PROJECT. Each sheet in the two (2) construction plans print sets shall be signed, sealed and dated. The title sheet only of the two (2) specifications sets shall be signed, sealed, and dated. Additionally, any required addenda shall be signed, sealed, and dated.

The CONSULTANT, following the COUNTY'S review of the Construction Documents and of the latest Statement of Probable Construction Cost, shall be available to assist the COUNTY in obtaining bids, and in preparing and awarding construction contracts for each bid package. The CONSULTANT shall assist conducting pre-bid conferences, and shall prepare a Bid Tabulation spreadsheet following receipt of bids.

CONSULTANT shall perform the following services related to bidding of the construction contract:

1. Prepare Bid Tab Form with appropriate line items for various categories of work.
2. Provide PDF files for the COUNTY to post on the COUNTY's procurement website or selected service provider such as Demand Star.
3. Provide input for agenda and attend pre-bid meeting.
4. Receive, evaluate and log all bidder written inquiries from County.
5. Prepare and issue addenda responses as required and agreed with the COUNTY'S Project Manager including any required revisions to construction plans and specifications for the PROJECT in support of addenda.
6. Evaluate bids, including qualifications of contractors, and recommend award.
7. Prepare two (2) complete sets of documents (plans and specifications) which shall be signed and sealed by the CONSULTANT conformed documents for construction.

3.10 TASK 10 – CONSTRUCTION ADMINISTRATION AND OFFICE ENGINEERING

All contact and/or communication from the CONSULTANT to the Contractor shall be coordinated with the knowledge of the COUNTY.

CONSULTANT shall provide construction contract administration and office engineering services during construction as follows:

1. Attend Preconstruction Conference. The CONSULTANT shall chair the conference and prepare and circulate minutes thereof.
2. Review and respond to Contractor's progress schedules. CONSULTANT will provide periodic reviews of the Contractor's progress schedule, and will allow an opportunity for the COUNTY to review and comment on CONSULTANT's proposed response prior to responding to Contractor.
3. Make Construction Field Observation Services consisting of visits to the site as frequent as necessary to become generally familiar with the progress and quality of the work and to determine in general if the work is proceeding in accordance with

the Contract Documents and prepare related reports and communications. This field observation requirement shall include any subconsultants at appropriate construction points.

4. Certification of construction of wastewater facilities per the FDEP. Provide services of qualified office based technical personnel to make site visits during construction as CONSULTANT deems necessary and customary to the profession. The reviews will be of a nature to allow CONSULTANT to certify that the facility has been completed to the extent that it is functionally complete, that the construction proceeded substantially in accordance with the permit and approved plans and specifications, and that it will function in compliance with all applicable statutes of the State of Florida when properly operated and maintained.
5. Schedule and attend special meetings as required and prepare and circulate minutes thereof.
6. Document noted defects or deficiencies and assist the COUNTY in preparing instructions to the Contractor for correction of noted defects.
7. Review and sign payment applications monthly.
8. Provide forecast of variances to the COUNTY on a monthly basis with regard to over-run and/or under-run of schedule and contract pay items.
9. Coordinate with other authorities (i.e., Verizon, Progress Energy, Maintenance staff, SWFWMD, FDEP, USACE, FDEP, etc.) as required to complete the construction of the facility.
10. Respond to Requests for Information (RFI's) and maintain log.
11. Prepare, reproduce and distribute supplemental drawings, specifications and interpretations in response to requests for clarification by the Contractor or the COUNTY as required by construction exigencies. Response to any request must be received by the COUNTY within two (2) working days of request, or the next available working day when the request is prior to a weekend or holiday.
12. Review for comment or approval any and all proposal requests, supplemental drawings and information and change orders.
13. Prepare, issue, and coordinate work directives and change orders in coordination with the COUNTY's PM. Maintain log of change order issues and pending change orders. All Change Orders must be submitted to the COUNTY for review and approval by the Board of County Commissioners before any work covered by such Change Orders can begin.
14. Attend construction progress meetings as necessary, including attendance by the CONSULTANT's project manager or qualified designee acceptable to the COUNTY, and one project engineer. The CONSULTANT shall chair each progress meeting and prepare minutes.
15. Consultation with the COUNTY regarding technical matters during construction.
16. Review the project upon notice by the Contractor that work is ready for final inspection and acceptance.
17. Notify the COUNTY of any deficiencies found in follow-up reviews.
18. Evaluate all testing results and make recommendations to the COUNTY.

CONSULTANT shall maintain project information including communications, contract information and logs. CONSULTANT shall be responsible for scanning-in and distributing correspondence received from contractors. The COUNTY shall be responsible for issuing notice to proceed, maintaining COUNTY's allowance status, notification of commencement of work and managing all matters that are not specifically listed above.

3.10.1 Shop Drawings

CONSULTANT shall maintain a master file of submittals with duplicate for COUNTY. CONSULTANT shall prepare and maintain a submittal status log. CONSULTANT shall process, review, approve, and distribute technical submittals for the construction contract including at a minimum:

1. Progress schedule
2. Schedule of values for lump sum construction contract
3. Layout survey
4. Laying schedules
5. Design certifications
6. Pipe design calculations
7. Pipe details, including fittings, linings and coatings
8. Sheeting/shoring certifications
9. Valves
10. Leakage tests
11. Disinfection
12. Tie-in details
13. Appurtenances
14. Concrete, flowable fill and grout
15. Road base
16. Pavement details
17. Drainage pipe
18. Silt fences, turbidity curtains and other erosion/siltation control
19. Utility survey
20. Settlement monitoring
21. Trenchless construction details
22. Restoration details
23. Masonry
24. Landscape replacement
25. Miscellaneous metals
26. Other architectural and structural items
27. Paint and protective coatings
28. Equipment
29. Special construction, instrumentation, and controls
30. Heating ventilation and air conditioning
31. Electrical

3.10.2 Certify Test Results to Permitting Agencies

CONSULTANT shall prepare certification of completion with test results as required by permitting agencies at completion of construction. Permits to be certified shall be limited to the permits required in the AGREEMENT. Certification of all other permits will be the responsibility of others.

3.10.3 Certify Project Complete

CONSULTANT shall prepare one project completion certification at the completion of the construction contract.

3.11 TASK 11 – CONSTRUCTION INSPECTION

The CONSULTANT, as representative of the COUNTY during construction, shall advise and consult with the COUNTY and all of the COUNTY'S instructions to the Contractor shall be issued through the CONSULTANT. Through continuous on-site observations of the work in progress and field checks of materials and equipment the CONSULTANT shall endeavor to provide protection for the COUNTY against defects and deficiencies in the work of the Contractor. CONSULTANT shall not be responsible to supervise, direct or control Contractor's work in progress or for the means, methods, techniques, sequences, or procedures of construction or safety precautions or programs incident thereto, or Contractor's compliance with Laws and Regulations applicable to Contractor's furnishing and performing the Work.

Based on such observations at the site and on the Contractor's Application for Payment, the CONSULTANT shall determine the amount owing to the Contractor and review and approve Pay Requests for such amounts. The approval of Pay Requests shall constitute a representation by the CONSULTANT to the COUNTY that the Work has progressed to the point indicated; that to the best of the CONSULTANT'S knowledge, information and belief, the quality of the Work is in accordance with the Construction Contract Documents subject to minor deviations from the Construction Contract Documents correctable prior to completion, and to any specific qualifications stated in the Pay Request, and that the Contractor is entitled to payment in the amount certified. The CONSULTANT shall review claims for extra compensation, or extensions of time from the Contractor, make recommendations to the COUNTY concerning validity, and prepare responses for the COUNTY. Neither CONSULTANT's review of the Contractor's work for the purposes of recommending payments nor CONSULTANT's recommendation of any payment, including final payment will impose on CONSULTANT responsibility to supervise, direct or control Contractor's work in progress or for the means, methods, techniques, sequences, or procedures of construction or safety precautions or programs incident thereto, or Contractor's compliance with Laws and Regulations applicable to Contractor's furnishing and performing the Work. It will also not impose responsibility on CONSULTANT to make any examination to ascertain how or for what purposes Contractor has used the moneys paid on account of the Contract Price or to determine that title to any portion of the work in progress, materials or equipment has passed to the County free and clear of any liens, claims, security interests, or encumbrances, or that there may not be other matters at issue between the County and the Contractor that might affect the amount that should be paid.

The CONSULTANT shall be, in the first instance, the interpreter of the requirements of the Construction Contract Documents. The CONSULTANT shall render opinions on all claims of the COUNTY or Contractor relating to the execution and progress of the Work and on all other matters or questions related thereto. The CONSULTANT'S decisions in matters relating to artistic effect shall be final if consistent with the intent of the Construction Contract Documents.

The CONSULTANT shall have authority to reject Work, which does not conform to the Construction Contract Documents. Whenever, in his reasonable opinion, he considers it necessary or advisable to provide for the proper implementation of the intent of the Construction Contract Documents, he will have authority to require special inspection or testing of any Work in accordance with the provisions of the Construction Contract Documents whether or not such Work is then fabricated, installed or completed.

The CONSULTANT shall:

Maintain at the job site orderly files for correspondence, reports of job conferences, Shop Drawings and samples, reproductions of original Contract Documents including all Work Directive Changes, Addenda, Change Orders, and Field Orders, additional Drawings issued subsequent to the execution of the Contract. Clarifications and interpretations of the Contract Documents, progress reports, and other PROJECT related documents;

Keep a diary or log book, recording Contractor hours on the job site, weather conditions, data relative to questions of Work Directive Changes, Change Orders or changed conditions, list of job

site visitors, list of job site equipment, daily activities, decisions, observations in general, and specific observations in more detail as in the case of observing test procedures, and send copies to the COUNTY;

Record names, addresses and telephone numbers of all Contractors, subcontractors and major suppliers of materials and equipment;

Furnish the COUNTY no less than monthly reports of progress of the Work and of Contractor's compliance with the progress schedule and schedule of Shop Drawing and sample submittals;

Report immediately to the COUNTY upon occurrence of any accident;

Verify that tests, equipment and systems startups and operating and maintenance training are conducted in the presence of appropriate personnel, and that Contractor maintains adequate records thereof, and observe, record and report to the COUNTY appropriate details relative to the test procedures and startups;

Accompany visiting inspectors representing public or other agencies having jurisdiction over the PROJECT, and record the results of these inspections; and

During the course of the Work, verify that certificates, maintenance and operation manuals and other data required to be assembled and furnished by the Contractor are applicable to the items actually installed and in accordance with the Contract Documents, and have this material delivered to the COUNTY prior to final payment for the Work.

The CONSULTANT shall before the issuance of a Certificate of Substantial Completion:

- a. Submit to the Contractor a list of observed items requiring completion or correction;
- b. Conduct final inspection in the company of the COUNTY, and Contractor and prepare a final list of items to be completed or corrected; and
- c. Observe that all items on the final list have been completed or corrected and make recommendations to the COUNTY concerning acceptance.

The CONSULTANT shall not:

1. Authorize any deviation from the Contract Documents or substitution of materials or equipment, unless authorized by the COUNTY;
2. Undertake any of the responsibilities of the Contractor, subcontractor or Contractor's superintendent;
3. Advise on, issue directions relative to or assume control over any aspect of the means, methods, techniques, sequences or procedures of construction unless such advice or directions are specifically required by the Contract Documents;
4. Advise on, issue directions regarding or assume control over safety precautions and programs in connection with the Work; and
5. Accept Shop Drawing or sample submittals from anyone other than the Contractor

CONSULTANT shall provide a full-time equivalent to act as Resident Project Representative (RPR) during construction for up to 52 weeks, 40 hours per week, as the basis for level of effort for this task. The RPR may be a combination of a senior construction manager and associate engineer inspector with appropriate qualifications in accordance with industry standard of care to conduct meaningful observations of the ongoing construction activities. Resident Project Representative's duties shall include the following:

1. Observe the construction contractor's work on-site during construction and make field observations.
2. Make reviews of the construction in progress, and the constructed work.
3. Prepare Daily Field Reports on construction activities and observations.
4. Assist as needed with construction contract management.
5. Measure for payment in accordance with contract items.
6. Attend progress meetings and special meetings and other project-related meetings, and prepare and circulate copies of minutes thereof.
7. Observe leakage and disinfection testing.
8. Take construction progress photographs, and preconstruction photographs of areas located adjacent to construction activities.
9. Coordinate materials testing and geotechnical consulting during the construction of the project, including but not limited to soil compaction, ready mix concrete slump and cylinder testing, asphaltic concrete testing, masonry mortar tests, monitoring of special foundation preparation activities if required by the final design (note it is anticipated the construction contract documents will require the Construction Contractor to provide an independent third party materials testing firm to perform the required testing).
10. Arrange for and coordinate instructions on operations and maintenance of equipment in conjunction with manufacturer's representatives.
11. Prepare preliminary and final punch list.

3.12 TASK 12 – FACTORY ACCEPTANCE TEST, LOOP CHECKOUT, AND START-UP ASSISTANCE

CONSULTANT shall provide the following services associated with Factory Acceptance Test, Loop Checkout and Start-up Assistance:

1. Provide start-up assistance at the completion of construction. Start-up assistance shall be limited to the furnishing of an experienced project engineer during the start-up phase to meet with COUNTY staff and Contractor to review the Contractor's proposed start-up sequence for technical requirements and to be present on an as needed basis during start-up. Once the project is placed in service, CONSULTANT shall observe visible piping, equipment and facilities, and appurtenances for visible signs of leakage or defect. CONSULTANT's effort is limited to the hours proposed, except as additional written authorization from the COUNTY is provided.
2. Develop test protocol, and provide oversight and documentation to generate fifteen (15) days of acceptable UV system performance test data as required by FDEP, and as discussed in Task 7, Permitting Assistance. Up to twenty-one (21) days of performance data testing is included in CONSULTANT's scope of services and lump sum fee.
3. If more than twenty-one (21) days of performance testing are required to collect the fifteen (15) days of acceptable performance testing data as determined by applicable regulatory agencies, then CONSULTANT shall be reimbursed by the COUNTY for all actual labor and material fees incurred after twenty-one (21) days. CONSULTANT shall include a clause in the specifications that states that the Contractor shall pay damages equal to the actual labor and material fees incurred by CONSULTANT after twenty-one (21) days of performance testing.
4. Work with the COUNTY to provide loop checkout of the control system after the system has been thoroughly checked out by the Construction Contractor.

5. Provide assistance during startup including coordination with the Contractor and COUNTY operations staff once the control system has been installed per CONSULTANT's plans and specifications. Startup includes testing of the control logic at the local and remote levels per construction contract requirements.
6. Attend a one (1) Factory Acceptance Test (FAT) for main control panel for UV system and submit a FAT summary memorandum.
7. If more than FAT is required to validate the system as determined by applicable regulatory agencies, then CONSULTANT shall be reimbursed by the COUNTY for all actual labor and material fees incurred for the additional tests. CONSULTANT shall include a clause in the specifications that states that the Contractor shall pay damages equal to the actual labor and material fees incurred by CONSULTANT for all additional Factory Assistance Testing.

3.13 TASK 13 – RECORD DRAWINGS, OPERATIONS AND MAINTENANCE (O&M) MANUAL SUPPLEMENT, AND TRAINING

CONSULTANT shall provide the following services associated with Record Drawings, Operations and Maintenance Manual Supplement, and Training:

1. Prepare certified record drawings of contract drawings. Record drawings shall be prepared based on final as-built drawings provided by the Contractor and approved by the CONSULTANT, as well as the CONSULTANT's observations and inspections including RFI's, changes, photos, inspection reports, and observations. The CONSULTANT will provide one (1) set of signed and sealed prints and one (1) CADD disk along with .PDF, .DWF, .DWG, and LandXML extraction electronic files of the as-built record construction drawings, and specifications in PDF and original electronic format. Transmit certified as-built record drawings and general data, appropriately identified, to the COUNTY within thirty (30) days following receipt of all as-built drawings from the Contractor.
2. CONSULTANT shall prepare O&M Manuals in hard copy and electronic format for the overall operation of the UV project. Content, format and presentation will be similar to the existing O&M manual prepared previously by the CONSULTANT for the overall plant operation and maintenance, and shall be suitable for insertion into the existing manual. At a minimum, the manual will include process description and operating theory, operating procedures and protocols, operating strategy and troubleshooting, safety and emergency, and maintenance policies, procedures, and schedules for the physical plant and equipment.
3. Provide five (5) separate full day training sessions to the COUNTY staff to provide an overview of the new facilities and coordinate with the Contractor, Contractor's suppliers, and COUNTY's pre-purchased equipment vendor to have them furnish the detailed training with respect to the operation and maintenance of the new equipment and facilities. CONSULTANT training sessions shall take place once prior to installation, once during installation, and once after installation. Training shall include proper facility operations, schedules, procedures and maintenance inventory.

3.14 TASK 14 – ASSET MANAGEMENT ASSISTANCE

CONSULTANT shall provide asset information and tagging per County direction and standards, with allowance of up to 80 hours of engineer intern assistance, and up to 8 hours of senior engineer supervision.

3.15 CONTINGENCY SERVICES

The following Services shall only be furnished by CONSULTANT when authorized in writing by the COUNTY'S Director of Engineering and Technical Support Division or designee.

1) Board of County Commissioners Presentations

CONSULTANT shall spend up to 60 labor hours to prepare and conduct and/or provide support to the COUNTY for one presentation to the Pinellas County Board of County Commissioners, including preparing Board agenda package, for the purpose of advising the Board of the status of the PROJECT. It is anticipated this will take place around the time of completion of the Basis of Design, and will be attended by no more than three key members of the CONSULTANT team. This shall include one draft presentation and one practice run with key COUNTY staff.

2) Laboratory Analysis and Process Sampling

Laboratory analysis and process sampling that is determined to be required as part of this Project will be performed by the COUNTY or an outside laboratory. The cost of laboratory analysis and process sampling performed by the COUNTY shall be borne by the COUNTY. The cost of third party laboratory analysis and process sampling will be performed on a reimbursement basis. The estimated cost for this service is expected to be \$15,000 as shown in the Engineering Fee Estimate provided in Attachment 3. If the actual cost required to perform the laboratory analysis and process sampling exceeds the estimate, additional testing may require the authorization of additional Contingency Services funds over this \$15,000 estimate.

3) Architectural Canopy Design

CONSULTANT will prepare an architectural design of a canopy to cover the UV system lamps and will assess options for full or partial covering over UV equipment:

- A. Prepare renderings for two optional themes adequate to illustrate appearance from ground level and above grade perspectives.
- B. Complete final architectural design of the canopy as part of and in connection with Task 6.

The cost for this Architectural Canopy Design as shown in the Engineering Fee Estimate provided in Attachment 3 is based upon the authorization of this Contingency Service task before or directly following the conclusion of the DRAFT BODR REVIEW WORKSHOP.

4) Support for Public Information/Involvement

Upon authorization of funds and an approved work effort, CONSULTANT shall provide up to 80 labor hours to support the COUNTY with the preparation of agendas or other materials for public information/involvement activities as requested by the COUNTY.

5) FDEP Environmental Resource Permit (ERP) Modification

The CONSULTANT, in representing the COUNTY assumes the responsibility for filing all the documents required to prepare ERP applications on behalf of the COUNTY, including applications and certified signed and sealed plans and specifications, for the approval of governmental authorities having jurisdiction over the PROJECT. The COUNTY will pay all fees for the ERP. CONSULTANT shall notify the COUNTY Project Manager a minimum of fifteen (15) working days in advance of permit application submittal of the required fees to allow the preparation of payment of the application fee and shall also provide a copy of the permitting Agency's fee schedule. It is assumed that the permitting will not include endangered species permitting, and is not included in the CONSULTANT Scope of Services.

CONSULTANT shall provide the following services:

1. Arrange, prepare agenda for, and conduct one pre-application meeting with FDEP to discuss the requirements for the ERP.
2. Following meeting, CONSULTANT shall prepare meeting minutes and submit to FDEP and the COUNTY.
3. Prepare & submit FDEP required documentation.
4. Follow through and respond to RAIs. A maximum of two series of RAIs shall be received and responded to by the CONSULTANT in regard to each permit, unless additional response is required due to CONSULTANT error or omission.
5. Compile all required permitting documentation for submittal to COUNTY (permitting file/notebook) for record

6) Other Contingency Services

CONSULTANT may furnish other Contingency Services due to unforeseen circumstances not anticipated under the Basic Services due to minor changes in the PROJECT scope, and only when authorized in writing by the COUNTY'S Director of Engineering and Technical Support Division or designee. Compensation for other Contingency Services shall be negotiated between the COUNTY and the CONSULTANT at the time the need for services becomes known.

3.16 ADDITIONAL SERVICES

Additional Services shall only be provided by the CONSULTANT when an amendment to this Agreement is executed by the Pinellas County Board of County Commissioners.

1. Bench scale and/or pilot scale testing
2. Preliminary and Final Design of an Ozone Pretreatment System – CONSULTANT shall complete the preliminary and final design of an Ozone pretreatment system as part of and in conjunction with Task 6.
3. Programming of digital control system hardware
4. SCADA system integration services
5. Prequalification of construction management (CM) at risk firms/teams, and assistance with procurement and oversight of CM at risk firms/teams
6. Archaeological, historical, or cultural resources assessments
7. In-plant inspection of major equipment or major pipe fabrication
8. Government relations services other than specified
9. Assistance with design review for related projects
10. Value engineering reviews for related projects
11. Public information/involvement services beyond those included in the scope
12. Additional services beyond the limits expressed in the scope
13. Litigation assistance
14. Coordination with outside peer review
15. Outside laboratory testing needed for design or performance testing

3.17 PROVISIONS RELATED TO ALL TASKS

- 3.17.1 The CONSULTANT will investigate and confirm in writing to the COUNTY, to the best of the CONSULTANT'S knowledge, conformance with all applicable local, public, and utility regulations.

- 3.17.2 The CONSULTANT will coordinate work designed by various disciplines.
- 3.17.3 Design activities shall be supported by design calculations properly identified as to subject and topic. Design references and any assumptions shall be noted. Calculations shall be in conformance with standard engineering practices. Design notes and computations shall be bound in suitable booklet form, and booklet shall be properly indexed as to content. All documents shall receive Quality Control Checks and Reviews. The CONSULTANT shall submit to the COUNTY copies of design notes and computations upon request.
1. Two (2) copies of the design notes and computations shall be submitted to the COUNTY with the design development review plans. When the plans are submitted for final review, the design notes and computations corrected for any COUNTY comments shall be resubmitted. At the PROJECT completion, a final set of the design notes and computations, properly endorsed by the CONSULTANT, shall be submitted with the record set of plans and tracings.
 2. The design notes and calculations shall include, but not be limited to, the following data:
 - a) Design criteria used for the PROJECT.
 - b) Lighting calculations.
 - c) Structural calculations.
 - d) Drainage calculations.
 - e) HVAC calculations.
 - f) Calculations as required by provisions of the Florida Energy Conservation Manual (Department of General Services), latest revision.
 - g) Calculations showing probable cost comparisons of various alternatives considered.
 - h) Documentation of decisions reached resulting from meetings, telephone conversations or site visits.
 - i) Other PROJECT-related correspondences as appropriate.
- 3.17.4 The CONSULTANT shall make such reviews, visits, attend such meetings and conferences and make such contacts as are necessary for the proper preparation of plans and specifications for the PROJECT.
- 3.17.5 The COUNTY in no way obligates itself to check the CONSULTANT'S work and further is not responsible for maintaining project schedules. Notwithstanding, the COUNTY will fulfill COUNTY's obligations as specified in accordance with the agreed upon schedule.
- 3.17.6 Other CONSULTANT responsibilities shall be as listed below:
- a. Provide necessary sealed drawings to obtain building permits or any utility permit.
 - b. Assist the COUNTY in Contractor claims and/or litigation if authorized as additional service.
 - c. Review the Adequacy and completeness of submittal and shop drawing documents submitted by the Contractor.
- 3.17.7 The CONSULTANT must be familiar with the intent, thoroughness, safety factors and design assumptions of all structural calculations.
- 3.17.8 All work prepared and/or submitted shall be reviewed and checked by a CONSULTANT (Architect/Engineer) registered in Florida. All plans shall be signed and sealed by the Professional CONSULTANT in responsible charge.

3.17.9 The requirements of the various utility services shall be recognized by the Consultant and properly coordinated with the PROJECT design.

3.17.10 Drainage investigations and drainage design shall be coordinated by the CONSULTANT with any city or drainage district that may be affected by or have an effect on the PROJECT.

3.17.11 Additional assumptions:

The following assumptions were used in preparing this scope of work and the associated cost estimate:

- A. Supervision of the removal of lead and asbestos-containing materials shall be provided and performed by the COUNTY or General Contractor.
- B. CONSULTANT does not guarantee the performance of nor assumes responsibility for personnel of the Contractor and/or COUNTY. If CONSULTANT observes personnel of the Contractor and or COUNTY that are not performing in a satisfactory manner or in compliance with the contract documents, the CONSULTANT shall advise the COUNTY.

SECTION 4 SERVICES TO BE FURNISHED BY THE COUNTY

4.1 The COUNTY shall provide the following for the CONSULTANT'S use and guidance:

- A. Copies of existing maps, existing aerial photographs, as-built construction plans and data pertinent to the PROJECT design, which the COUNTY may have in its possession.
- B. Reproduces of the COUNTY Engineering Department Standard Drawings applicable to the PROJECT.
- C. Sample copies of the COUNTY standard contract documents and specifications.
- D. Preparation of legal (front-end) section of the specifications.

SECTION 5 PRESENTATIONS, PUBLIC MEETINGS AND TECHNICAL LIAISON

The following services shall be provided at no additional cost to the COUNTY:

5.1 Prior to the commencement of design activities, the COUNTY will conduct with the CONSULTANT a pre-design conference for the purpose of discussing issues relative to the PROJECT, plans preparation and submittal procedures and to convey to the CONSULTANT such items provided for under Section 4 as may be required and available at that time.

5.2 The CONSULTANT shall make presentations to the COUNTY'S Director of Engineering and Technical Support Division or designee as often as reasonably requested and at any point in the PROJECT development should issues arise which make additional presentations other than those listed elsewhere in this Agreement, in the COUNTY'S best interest.

5.3 The CONSULTANT shall participate in Monthly PROJECT Conferences with COUNTY staff personnel. The meetings will be scheduled by the COUNTY at a location provided by the COUNTY

5.4 As set forth in Task 7, the CONSULTANT shall attend, as technical advisor to the COUNTY meetings or hearings conducted by permitting agencies or public bodies in connection with any permits required in connection with work performed for Task 7 for the construction of the PROJECT, and shall prepare presentation aids, documents and data required in connection with such meetings or hearings, and shall provide engineering and technical assistance to the COUNTY in its pleading of the case.

5.5 The CONSULTANT shall keep accurate minutes of all meetings attended by the CONSULTANT and distribute copies to all attending. These meetings shall be set up through the COUNTY and appropriate COUNTY staff shall attend.

SECTION 6 PAYMENT GUIDELINES AND CATEGORY OF SERVICES

6.1 BASIC SERVICES

The services described and provided for under Sections 2, 3 and 4 shall constitute the Basic Services to be performed by the CONSULTANT under this Agreement.

6.2 CONTINGENCY SERVICES

When authorized in writing by the COUNTY'S Director of Engineering and Technical Support Division or designee, the CONSULTANT shall furnish services resulting from unforeseen circumstances not anticipated under Basic Services due to minor changes in the PROJECT scope.

Compensation for any Contingency Services assignments shall be negotiated between the COUNTY and the CONSULTANT at the time the need for services becomes known.

6.3 ADDITIONAL SERVICES

When executed by the Board of County Commissioners as an amendment to this Agreement, the CONSULTANT shall provide such additional services as may become necessary because of changes in the Scope of PROJECT. Additional Services shall be classified as any change beyond the Contingency Services upset limit for compensation.

6.4 INVOICING

The CONSULTANT may submit invoices for fees earned on a monthly basis. Such invoicing shall be supported by a Progress Report showing the actual tasks performed and their relationship to the percentage of fee claimed for each phase. Billings for each Task of work shall be for the percentage of work effort completed to date for that phase. The COUNTY shall make payments to the CONSULTANT for work performed in accordance with the Local Government Prompt Payment Act, Section 218.70 et. seq., F.S.

Should an invoiced amount for fees earned appear to exceed the work effort believed to be completed, the COUNTY may, prior to processing of the invoice for payment, require the CONSULTANT to submit satisfactory evidence to support the invoice.

All progress reports and invoices shall be submitted to:

Finance Division Accounts Payable,
Board of County Commissioners, Pinellas County,
PO Box 2438,
Clearwater Florida 33757,

Or via email to FinanceAccountsPay@Pinellascounty.org with the word invoice in the subject line.

Include purchase order number, name of County department that ordered the services, and name and phone number of your contact at the ordering department

Invoices not properly prepared (mathematical errors, billing not reflecting actual work done, any signature, etc.) shall be returned to the CONSULTANT for correction.

Fees for contingent or additional services authorized shall be invoiced separately, and shall be due and payable in full upon the presentation of satisfactory evidence that the corresponding services have been performed.

SECTION 7 COMPENSATION TO THE CONSULTANT

7.1 For the BASIC SERVICES provided for in this Agreement, as defined in Section 3, the COUNTY agrees to pay the CONSULTANT as follows (see Attachment 3):

A Lump Sum Fee of: Two Million Seven Hundred Thirteen Thousand Four Hundred Seventy Five dollars (\$ 2,713,475.00) for the PROJECT.

The above fees shall constitute the total not to exceed amount of Two Million Seven Hundred Thirteen Thousand Four Hundred Seventy Five dollars (\$ 2,713,475.00) to the CONSULTANT for the performance of the Basic Services.

7.2 For any CONTINGENCY SERVICES performed, the COUNTY agrees to pay the CONSULTANT, a negotiated fee based on the assignment, up to a maximum amount not to exceed One Hundred Seventy Thousand Nine Hundred Eighty dollars (\$170,980.00) for all assignments performed.

7.3 Total agreement amount Two Million Eight Hundred Eighty Four Thousand Four Hundred Fifty Five dollars (\$2,884,455.00).

7.4 For any ADDITIONAL SERVICES, the COUNTY agrees to pay the CONSULTANT a negotiated total fee based on the work to be performed as detailed by a written amendment to this Agreement.

7.5 In the event that this Agreement is terminated under the provisions of this contract the total and complete compensation due the CONSULTANT shall be as established by the COUNTY based on mutual agreement between CONSULTANT and COUNTY of the percentage of work effort completed to date of termination.

SECTION 8 PERFORMANCE SCHEDULE

Time is of the essence in this Agreement. The CONSULTANT shall plan and execute the performance of all services provided for in this Agreement in such manner as to ensure their proper and timely completion in accordance with the mutually agreed upon schedule.

8.1 The services to be rendered by the CONSULTANT shall be commenced upon receipt from the COUNTY of written "NOTICE TO PROCEED."

8.2 The CONSULTANT shall submit an initial schedule to the COUNTY for review and approval within fourteen (14) days from receipt of written "NOTICE TO PROCEED."

8.3 Final bid set and final specifications submittal shall be submitted to the COUNTY within Two Hundred Forty Five (245) calendar days from receipt of written "NOTICE TO PROCEED."

8.4 The CONSULTANT shall not be held responsible for delays in the completion of the PROJECT design when the COUNTY causes such delays. The COUNTY reviews related to the above submittals shall not exceed ten (10) days. In the event of any delays to the project through no fault of the CONSULTANT, including but not limited to force majeure events, permitting delays by third parties or owner required consent or approvals, or Bid protests which prevents CONSULTANT from completing any part of the Work, the time required for, or the performance of any part of the work under this Agreement, an equitable adjustment in contract time shall be made by mutual agreement and the Agreement modified in writing accordingly.

SECTION 9 AUTHORIZATION FOR CONTINGENT OR ADDITIONAL SERVICES

9.1 The CONTINGENCY services provided for under this Agreement shall be performed only upon prior written authorization from the Director of Engineering and Technical Support Division or designee.

9.2 The ADDITIONAL services provided for under this Agreement shall be performed only upon approval of the Board of County Commissioners.

9.3 The CONSULTANT shall perform no services contemplated to merit compensation beyond that provided for in this Agreement unless such services and compensation therefore are provided for by appropriate written authorization or amendment(s) to this Agreement.

SECTION 10 FIRMS AND INDIVIDUALS PROVIDING SUBCONSULTING SERVICES

The COUNTY reserves the right to review the qualifications of any and all subconsultants, and to reject any subconsultant in a proper and timely manner, deemed not qualified to perform the services for which it shall have been engaged.

SECTION 11 SATISFACTORY PERFORMANCE

All services to be provided by the CONSULTANT under the provisions of this Agreement, including services to be provided by subcontractors, shall be performed to the reasonable satisfaction of the COUNTY'S Director of Engineering and Technical Support Division or designee.

SECTION 12 RESOLUTION OF DISAGREEMENTS

12.1 The COUNTY shall reasonably decide all questions and disputes, of any nature whatsoever, that may arise in the execution and fulfillment of the services provided for under this Agreement.

12.2 The decision of the COUNTY upon all claims, questions, disputes and conflicts shall be final and conclusive, and shall be binding upon all parties to this Agreement, subject to judicial review.

SECTION 13 CONSULTANT'S ACCOUNTING RECORDS

13.1 Records of expenses pertaining to all services performed shall be kept in accordance with generally accepted accounting principles and procedures.

13.2 The CONSULTANT'S records shall be open to inspection and subject to examination, audit, and/or reproduction during normal working hours by the COUNTY'S agent or authorized representative to

the extent necessary to adequately permit evaluation and verification of any invoices, payments or claims submitted by the CONSULTANT or any of his payees pursuant to the execution of the Agreement. These records shall include, but not be limited to, accounting records, written policies and procedures, subcontractor files (including proposals of successful and unsuccessful bidders), original estimates, estimating worksheets, correspondence, change order files (including documentation covering negotiated settlements), and any other supporting evidence necessary to substantiate charges related to this Agreement. They shall also include, but not be limited to, those records necessary to evaluate and verify direct and indirect costs (including overhead allocations) as they may apply to costs associated with this Agreement. The COUNTY shall not audit payroll and expense records on task assignments paid by lump sum fee.

13.3 For the purpose of such audits, inspections, examinations and evaluations, the COUNTY'S agent or authorized representative shall have access to said records from the effective date of the Agreement, for the duration of work, and until three (3) years after the date of final payment by the COUNTY to the CONSULTANT pursuant to this Agreement.

13.4 The COUNTY'S agent or authorized representative shall have access to the CONSULTANT'S facilities and all necessary records in order to conduct audits in compliance with this Section. The COUNTY'S agent or authorized representative shall give the CONSULTANT reasonable advance notice of intended inspections, examinations, and/or audits.

SECTION 14 OWNERSHIP OF PROJECT DOCUMENTS

Upon completion or termination of this Agreement, all records, documents, tracings, plans, specifications, maps, evaluations, reports and other technical data, other than working papers, prepared or developed by the CONSULTANT under this Agreement shall be delivered to and become the property of the COUNTY. The CONSULTANT, at its own expense, may retain copies for its files and internal use. The COUNTY shall not reuse any design plans or specifications to construct another project at the same or a different location without the CONSULTANT'S specific written verification, adaptation or approval.

SECTION 15 INSURANCE COVERAGE AND INDEMNIFICATION

15.1 The CONSULTANT shall procure, pay for and maintain at least the following insurance coverages and limits. Said insurance shall be evidenced by delivery to the COUNTY of one (1) certificate of insurance executed by the insurers listing coverages and limits, expiration dates and terms of policies and all endorsements whether or not required by the COUNTY, and listing all carriers issuing said policies; and (2) upon request, a certified copy of each policy including all endorsements. The insurance requirements shall remain in effect throughout the term of the Agreement.

15.1.1 Workers' compensation in at least the Limits as required by law; Employers' Liability Insurance of not less than \$100,000 for each accident.

15.1.2 Comprehensive General Liability Insurance including, but not limited to, Independent Contractor, Contractual, Premises-Operations, and Personal Injury covering the liability assumed under indemnification provisions of this Agreement, with limits of liability for personal injury and/or bodily injury, including death of not less than **\$1,000,000**, each occurrence; and property damage of not less than \$100,000, each occurrence. Coverage shall be on an "occurrence" basis or claims made form with "tail coverage" extending three (3) years beyond completion and acceptance of the PROJECT with proof of "tail coverage" to be submitted with the invoice for final payment. In lieu of "tail coverage," CONSULTANT may submit annually to the COUNTY a current Certificate of Insurance proving claims made insurance remains in force throughout the same three (3) year period, and the policy shall include Broad Form Property Damage coverage of not less than \$50,000 per occurrence, unless otherwise stated by exception herein.

15.1.3 Professional Liability Insurance (including Errors and Omissions) and Pollution liability with minimum limits of **\$2,000,000** per occurrence, if occurrence form is available; or claims made form with "tail coverage" extending three (3) years beyond completion and acceptance of the PROJECT with proof of "tail coverage" to be submitted with the invoice for final payment. In lieu of "tail coverage," CONSULTANT may submit annually to the COUNTY a current Certificate of Insurance proving claims made insurance remains in force throughout the same three (3) year period.

15.1.4 Comprehensive Automobile and Truck liability covering owned, hired and non-owned vehicles with minimum limits of **\$1,000,000** each occurrence for bodily injury including death, and property damage of not less than \$100,000, each occurrence. Coverage shall be on an "occurrence" basis, such insurance to include coverage for loading and unloading hazards.

15.2 Each insurance policy shall include the following conditions by endorsement to the policy:

15.2.1 Each policy shall require that thirty (30) days prior to expiration, cancellation, non-renewal or any material change in coverages or limits, a notice thereof shall be given to COUNTY by certified mail to: Director of Engineering and Technical Support Division, and the Director of Risk Management at 400 South Ft. Harrison Avenue, Clearwater, FL, 33756. CONSULTANT shall also notify COUNTY, in a like manner, within twenty-four (24) hours after receipt, of any notices of expiration, cancellation, non-renewal or material change in coverage received by said CONSULTANT from its insurer; and nothing contained herein shall absolve CONSULTANT of this requirement to provide notice.

15.2.2 Companies issuing the insurance policy, or policies, shall have no recourse against COUNTY for payment of premiums or assessments for any deductibles which all are at the sole responsibility and risk of CONSULTANT.

15.2.3 The term COUNTY in this Section 15 shall include the Board of County Commissioners, all its members, its officers, and employees while acting on behalf of Pinellas County.

15.2.4 Pinellas County shall be endorsed to the required policy or policies as an additional insured, exclusive of Professional Liability Insurance and Workers' Compensation Insurance.

15.2.5 The policy clause "Other Insurance" shall not apply to any insurance coverage currently held by COUNTY to any such future coverage, or to COUNTY'S Self-Insured Retentions of whatever nature.

The CONSULTANT hereby waives subrogation rights for loss or damage against the COUNTY.

15.3 Unless specifically prohibited by Florida, the CONSULTANT shall defend, indemnify and hold harmless the COUNTY, its officers and employees from any and all liabilities, claims, damages, penalties, demands, judgments, actions, proceedings, losses or costs, including, but not limited to, reasonable attorneys' fees and paralegals' fees, or by, or on account of, any claim or amounts recovered under the "Workers' Compensation Law" or of any other laws, by-laws, ordinance, order or decree, except only such injury or damage as shall have been occasioned by the sole negligence of the COUNTY, whether resulting from any claimed breach of this Agreement by the CONSULTANT or from personal injury, property damage, direct damages, to the extent caused by the negligence, recklessness, or intentional wrongful misconduct of the CONSULTANT or anyone employed or utilized by the CONSULTANT in the performance of this Agreement.

The duty to defend under this Article is independent and separate from the duty to indemnify, and the duty to defend exists regardless of any ultimate liability of the CONSULTANT, the COUNTY and any indemnified party. The duty to defend arises immediately upon presentation of a claim for damages caused by the negligence, recklessness, or intentional wrongful misconduct of the CONSULTANT in the performance of this Agreement by any party and written notice of such claim being provided to the CONSULTANT. The CONSULTANT'S obligation to indemnify and defend under this Article will survive the expiration or earlier termination of this Agreement until it is determined by final judgment that an

action against the COUNTY or an indemnified party for the matter indemnified hereunder is fully and finally barred by the applicable statute of limitations.

**SECTION 16
EQUAL EMPLOYMENT OPPORTUNITY CLAUSE
FOR CONTRACTS NOT SUBJECT TO EXECUTIVE ORDER 11246**

In carrying out the contract, the CONSULTANT shall not discriminate against employee or applicant for employment because of race, color, religion, sex or national origin.

**SECTION 17
INDEPENDENT CONTRACTOR STATUS AND COMPLIANCE WITH THE
IMMIGRATION REFORM AND CONTROL ACT OF 1986**

CONSULTANT acknowledges that it is functioning as an independent contractor in performing under the terms of this Agreement, and it is not acting as an employee of COUNTY. CONSULTANT acknowledges that it is responsible for complying with the provisions of the Immigration Reform and Control Act of 1986, located at 8 U.S.C. Section 1324, *et seq.*, and regulations relating thereto. Failure to comply with the above provisions of this contract shall be considered a material breach and shall be grounds for immediate termination of the contract.

**SECTION 18
PROHIBITION AGAINST CONTINGENT FEE**

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

**SECTION 19
TRUTH IN NEGOTIATIONS**

By execution of this Agreement, the CONSULTANT certifies to truth-in-negotiations and that wage rates and other factual unit costs supporting the compensation are accurate, complete and current at the time of contracting. Further, the original contract amount and any additions thereto shall be adjusted to exclude any significant sums where the COUNTY determines the contract price was increased due to inaccurate, incomplete or non-current wage rates and other factual unit costs. Such adjustments must be made within one (1) year following the end of the contract.

**SECTION 20
SUCCESSORS AND ASSIGNS**

The CONSULTANT shall not assign, sublet, or transfer his interest in this Agreement without the written consent of the COUNTY.

**SECTION 21
INTEREST ON JUDGMENTS**

In the event of any disputes between the parties to this Agreement, including without limitation thereto, their assignees and/or assigns, arising out of or relating in any way to this Agreement, which results in litigation and a subsequent judgment, award or decree against either party, it is agreed that any entitlement to post judgment interest, to either party and/or their attorneys, shall be fixed by the proper court at the rate of five percent (5%), per annum, simple interest. Under no circumstances shall either party be entitled to pre-judgment interest. The parties expressly acknowledge and, to the extent allowed by law, hereby opt out of any provision of federal or state statute not in agreement with this paragraph.

SECTION 22 TERMINATION OF AGREEMENT

22.1 The COUNTY reserves the right to cancel this Agreement, without cause, by giving thirty (30) days prior written notice to the CONSULTANT of the intention to cancel. Failure of the CONSULTANT to fulfill or abide by any of the terms or conditions specified shall be considered a material breach of contract and shall be cause for immediate termination of the contract at the discretion of COUNTY. Alternatively, at the COUNTY'S discretion, the COUNTY may provide to CONSULTANT thirty (30) days to cure the breach. Where notice of breach and opportunity to cure is given, and CONSULTANT fails to cure the breach within the time provided for cure, COUNTY reserves the right to treat the notice of breach as notice of intent to cancel the Agreement for convenience.

22.2 If COUNTY terminates the Agreement for convenience, other than where the CONSULTANT breaches the Agreement, the CONSULTANT'S recovery against the COUNTY shall be limited to that portion of the CONSULTANT'S compensation earned through date of termination, together with any costs reasonably incurred by the CONSULTANT that are directly attributable to the termination. The CONSULTANT shall not be entitled to any further recovery against the COUNTY, including but not limited to anticipated fees or profit on work not required to be performed.

22.3 Upon termination, the CONSULTANT shall deliver to the COUNTY all original papers, records, documents, drawings, models, and other material set forth and described in this Agreement.

22.4 In the event that conditions arise, such as lack of available funds, which in the COUNTY'S opinion make it advisable and in the public interest to terminate this Agreement, it may do so upon written notice.

SECTION 23 AGREEMENT TERM

This Agreement will become effective on the date of execution first written above and shall remain in effect for Three (3) years, unless terminated at an earlier date under other provisions of this Agreement, or unless extended for a longer term by amendment.

SECTION 24 CONFLICT OF INTEREST

24.1 By accepting award of this Contract, the CONSULTANT, which shall include its directors, officers and employees, represents that it presently has no interest in and shall acquire no interest in any business or activity which would conflict in any manner with the performance of services required hereunder, including as described in the CONSULTANT'S own professional ethical requirements. An interest in a business or activity which shall be deemed a conflict includes but is not limited to direct financial interest in any of the material and equipment manufacturers suppliers, distributors, or contractors who will be eligible to supply material and equipment for the PROJECT for which the CONSULTANT is furnishing its services required hereunder.

24.2 If, in the sole discretion of the County Administrator or designee, a conflict of interest is deemed to exist or arise during the term of the contract, the County Administrator or designee may cancel this contract, effective upon the date so stated in the Written Notice of Cancellation, without penalty to the COUNTY.

**SECTION 25
ENTIRE AGREEMENT**

This Agreement represents, together with all Exhibits, the entire written Agreement between the COUNTY and the CONSULTANT and may be amended only by written instrument signed by both the COUNTY and the CONSULTANT.

**SECTION 26
PUBLIC ENTITY CRIMES**

The CONSULTANT is directed to the Florida Public Entity Crimes Act, Section 287.133, Florida Statutes, specifically section 2(a), and the COUNTY'S requirement that the CONSULTANT comply with it in all respects prior to and during the term of the Contract.


**SECTION 27
GOVERNING LAW AND AGREEMENT EXECUTION**

This Agreement shall be governed by the laws of the State of Florida.

IN WITNESS WHEREOF, the parties herein have executed this Agreement as of the day and year first written above.

Firm Name
PARSONS WATER & INFRASTRUCTURE INC.

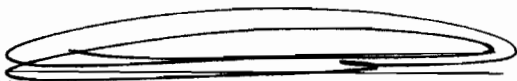
PINELLAS COUNTY, by and through its Board of
County Commissioners

By: 
Print Name: Suad Cistic
Title: Vice President Date: 10/11/11

By: _____
Chairman Date: _____

ATTEST:

ATTEST:
Ken Burke, Clerk of the Circuit Court

By: 
Print Name: Armond Tatevossian
Title: Asst. Secretary Date: 10/11/11

By: _____
Deputy Clerk Date: _____

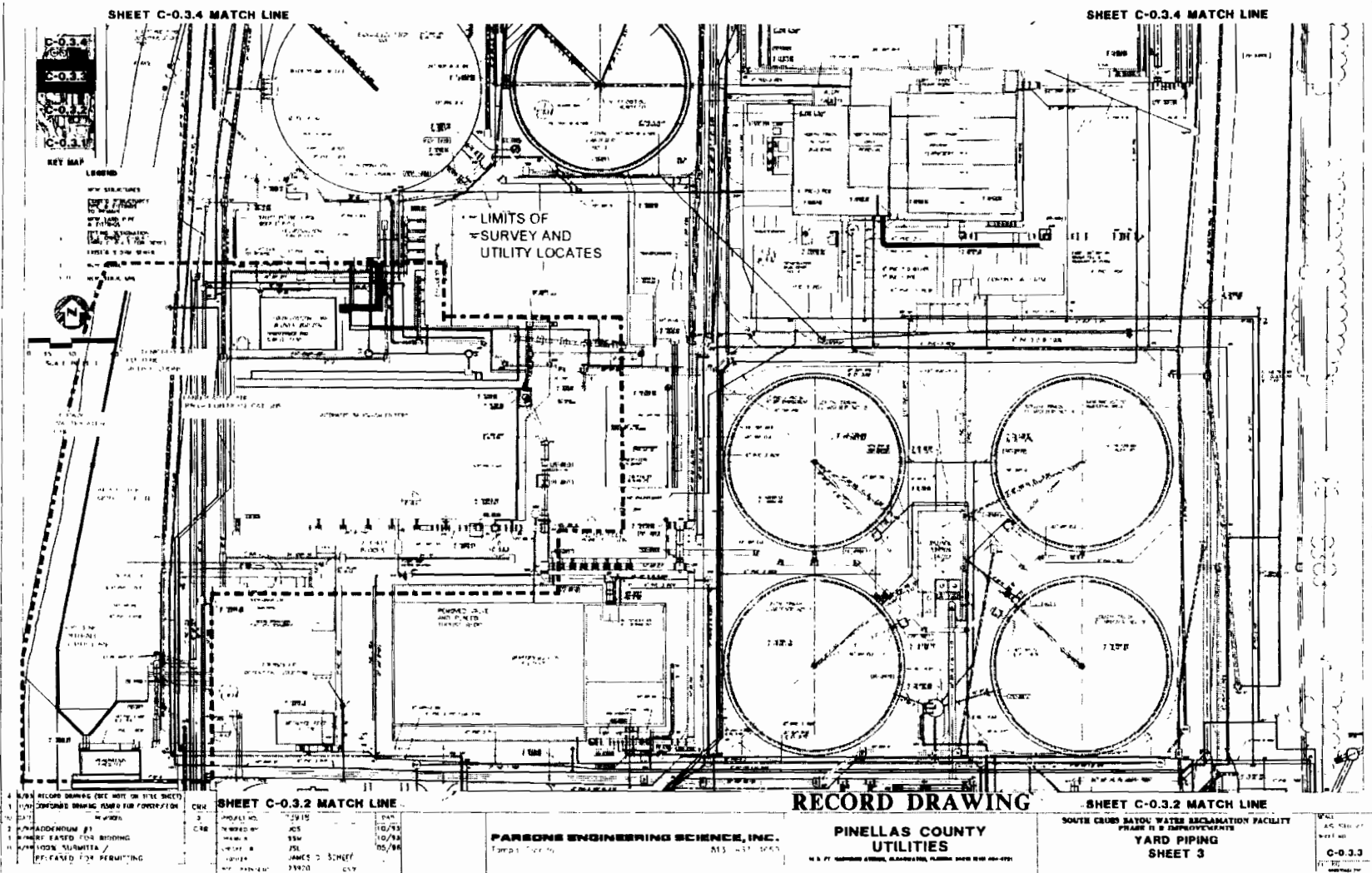
(CORPORATE SEAL)

APPROVAL AS TO FORM:

By: 
Office of the County Attorney

ATTACHMENT 1

**Relevant Site Configuration
(Derived From COUNTY Record Drawing C-0.3.3)**



ATTACHMENT 2

List of Drawings

Table A2-1 below lists the drawings that are included in this scope of services and that will be provided to COUNTY as part of PROJECT. The table lists the proposed sheet title, and the numbers in the table represent the percentage that individual sheet will be complete as part of each design phase submittal (i.e., 30%, 75%, and Bid Set).

Table A2-1: List of drawings and percent each drawing will be complete for each design phase (i.e., 30%, 75%, and Bid Set).

| DRAWING LIST | | | DESIGN PHASE SUBMITTAL | | |
|--------------|-------------------|---|------------------------|-----|-----|
| COUNT | NUMBER | SHEET TITLE | 30% | 75% | Bid |
| | GENERAL | | | | |
| 1 | G-0 1 | TITLE SHEET | 90 | 100 | 100 |
| 1 | G-0 2 | DRAWING INDEX | 80 | 95 | 100 |
| 1 | G-0 3 | GENERAL LEGEND & ABBREVIATION | 90 | 100 | 100 |
| 1 | G-0 4 | OVERALL SITE PLAN | 75 | 95 | 100 |
| 1 | G-0 5 | PROCESS FLOW DIAGRAM | 75 | 95 | 100 |
| 1 | G-0 6 | HYDRAULIC PROFILE | 75 | 95 | 100 |
| | DEMOLITION | | | | |
| 1 | D-XX | OVERALL DEMOLITION SITE PLAN | | 90 | 100 |
| 1 | D-XX | ABW FILTER - DEMOLITION PLAN | | 90 | 100 |
| 1 | D-XX | EQ. TANK BLOWER BUILDING - DEMOLITION PLAN | | 90 | 100 |
| 1 | D-XX | DEMOLITION DETAILS | | 90 | 100 |
| | CIVIL | | | | |
| 1 | C-XX | SITE GRADING AND DRAINAGE PLAN | | 75 | 100 |
| 1 | C-XX | STORMWATER DRAINAGE DETAILS | | 75 | 100 |
| 1 | C-XX | YARD PIPING | 60 | 90 | 100 |
| 1 | C-XX | YARD PIPING - ENLARGED PLAN AND DETAILS | 60 | 90 | 100 |
| 1 | C-XX | YARD PIPING - ENLARGED PLAN AND DETAILS | | 90 | 100 |
| 1 | C-XX | MISCELLANEOUS CIVIL DETAILS | | 90 | 100 |
| 1 | C-XX | LANDSCAPE DETAILS | | 90 | 100 |
| 1 | C-XX | IRRIGATION DETAIL | | 90 | 100 |
| 1 | C-XX | TRAFFIC CONTROL & IDENTIFYING DEVICES | 60 | 90 | 100 |
| | STRUCTURAL | | | | |
| 1 | S-XX | STRUCTURAL NOTES AND LEGEND | 60 | 90 | 100 |
| 1 | S-XX | GENERAL DETAILS | | 75 | 100 |
| 1 | S-XX | GENERAL DETAILS | | 75 | 100 |
| 1 | S-XX | MISCELLANEOUS STRUCTURES | | 75 | 100 |
| 1 | S-XX | EQ TANK BLOWER BUILDING MODIFICATIONS | 30 | 75 | 100 |
| 1 | S-XX | EQ TANK BLOWER BUILDING SECTIONS AND DETAIL MODIFICATIONS | | 75 | 100 |
| 1 | S-XX | UV FACILITY - FOUNDATION AND LOWER LEVEL PLAN | | 75 | 100 |
| 1 | S-XX | UV FACILITY - UPPER LEVEL AND SUPERSTRUCTURE PLAN | 30 | 75 | 100 |
| 1 | S-XX | UV FACILITY - SECTIONS AND DETAILS | | 75 | 100 |
| 1 | S-XX | UV FACILITY-SUPERSTRUCTURE DETAILS | | 75 | 100 |
| 1 | S-XX | UV CHANNEL-TYPICAL LOWER AND UPPER LEVEL PLAN | | 75 | 100 |
| 1 | S-XX | UV CHANNEL - SECTIONS | | 75 | 100 |

| DRAWING LIST | | | DESIGN PHASE SUBMITTAL | | |
|--------------|------------------------|---|------------------------|-----|-----|
| COUNT | NUMBER | SHEET TITLE | 30% | 75% | Bid |
| 1 | S-XX | REAERATION FACILITY - FOUNDATION AND UPPER LEVEL PLAN | 30 | 75 | 100 |
| 1 | S-XX | REAERATION FACILITY - SECTIONS | | 75 | 100 |
| 1 | S-XX | REAERATION FACILITY - SECTIONS AND DETAILS | | 75 | 100 |
| | ARCHITECTURAL | | | | |
| 1 | A-XX | EXISTING CONDITIONS / DEMOLITION PLAN | | 75 | 100 |
| 1 | A-XX | EXTERIOR / INTERIOR ELEVATIONS | | 75 | 100 |
| 1 | A-XX | ROOF PLAN | | 75 | 100 |
| 1 | A-XX | ARCHITECTURAL - SCHEDULE | | 75 | 100 |
| 1 | A-XX | ARCHITECTURAL - DETAILS | | 75 | 100 |
| 1 | A-XX | EQ. TANK BLOWER BUILDING FLOOR PLAN MODIFICATIONS | 30 | 75 | 100 |
| 1 | A-XX | EQ. TANK BLOWER BUILDING SECTION MODIFICATIONS | | 75 | 100 |
| | INSTRUMENTATION | | | | |
| 1 | I-XX | P&ID LEGEND | 90 | 95 | 100 |
| 1 | I-XX | SYSTEM ARCHITECTURE | 75 | 90 | 100 |
| 1 | I-XX | INSTRUMENTATION INSTALLATION DETAILS | | 75 | 100 |
| 1 | I-XX | INSTRUMENTATION INSTALLATION DETAILS | | 75 | 100 |
| 1 | I-XX | P&ID MISCELLANEOUS SYSTEMS | | 75 | 100 |
| 1 | I-XX | P&ID FILTER FEED PUMPING MODIFICATIONS | 60 | 90 | 100 |
| 1 | I-XX | P&ID DENITRIFICATION FILTERS - MODIFICATIONS | 60 | 90 | 100 |
| 1 | I-XX | P&ID EQ. TANK AERATION BLOWER SYSTEM MODIFICATIONS | 60 | 90 | 100 |
| 1 | I-XX | P&ID UV SYSTEM | 60 | 90 | 100 |
| 1 | I-XX | P&ID REAERATION SYSTEM | 60 | 90 | 100 |
| | MECHANICAL | | | | |
| 1 | M-XX | MECHANICAL LEGEND AND DETAILS | 90 | 95 | 100 |
| 1 | M-XX | FILTER FEED PUMPING MODIFICATIONS | 60 | 90 | 100 |
| 1 | M-XX | DENITRIFICATION FILTERS - MODIFICATIONS | 60 | 90 | 100 |
| 1 | M-XX | EQ. TANK BLOWER BUILDING PLAN MODIFICATIONS | 60 | 90 | 100 |
| 1 | M-XX | EQ. TANK BLOWER BUILDING SECTIONS AND DETAILS MODIFICATIONS | | 90 | 100 |
| 1 | M-XX | UV SYSTEM PLAN | 60 | 90 | 100 |
| 1 | M-XX | UV SYSTEM SECTIONS AND DETAILS | | 90 | 100 |
| 1 | M-XX | UV SYSTEM DETAILS | | 90 | 100 |
| 1 | M-XX | REAERATION PLAN | 60 | 90 | 100 |
| 1 | M-XX | REAERATION SECTIONS AND DETAILS | | 90 | 100 |
| 1 | M-XX | REAERATION DETAILS | | 90 | 100 |
| | HVAC | | | | |
| 1 | H-XX | EQ. TANK BLOWER BUILDING PLAN - MODIFICATIONS | | 75 | 100 |
| 1 | H-XX | EQ. TANK BLOWER BUILDING DETAILS | | 75 | 100 |
| | ELECTRICAL | | | | |
| 1 | E-XX | ELECTRICAL LEGEND | 90 | 95 | 100 |
| 1 | E-XX | SITE PLAN | 60 | 75 | 100 |

| DRAWING LIST | | | DESIGN PHASE SUBMITTAL | | |
|--------------|--------|--|------------------------|-----|-----|
| COUNT | NUMBER | SHEET TITLE | 30% | 75% | Bid |
| 1 | E-XX | OVERALL PLANT SINGLE LINE DIAGRAM MODIFICATIONS | 60 | 75 | 100 |
| 1 | E-XX | DENITRIFICATION FILTERS - MODIFICATIONS | | 75 | 100 |
| 1 | E-XX | EQ. TANK BLOWER BUILDING MODIFICATIONS | 60 | 75 | 100 |
| 1 | E-XX | UV SYSTEM - POWER and LIGHTING PLAN | | 75 | 100 |
| 1 | E-XX | UV SYSTEM - SINGLE LINE DIAGRAM | 60 | 75 | 100 |
| 1 | E-XX | UV SYSTEM - GROUNDING AND LIGHTNING PROTECTION PLAN | | 75 | 100 |
| 1 | E-XX | UV SYSTEM - CONTROLS PLAN | | 75 | 100 |
| 1 | E-XX | REAERATION - POWER and LIGHTING PLAN | | 75 | 100 |
| 1 | E-XX | REAERATION - SINGLE LINE DIAGRAM | 60 | 75 | 100 |
| 1 | E-XX | REAERATION - GROUNDING AND LIGHTNING PROTECTION PLAN | 30 | 75 | 100 |
| 1 | E-XX | REAERATION - CONTROLS PLAN | | 75 | 100 |
| 1 | E-XX | REAERATION - LIGHTING PLAN | | 75 | 100 |
| 1 | E-XX | ELECTRICAL DETAILS | | 75 | 100 |
| 1 | E-XX | ELECTRICAL DETAILS | | 75 | 100 |

ATTACHMENT 3

Engineering Fee Estimate

| | | | | | | | | | | | | | | | |
|---|--|--|---|------------------------------|-------------------------------------|--------------------|------------------------|---------------------|-------------|------------------|-------------|-------------------------------|----------------|-------------|-------------------------|
| <div>PARSONS</div> <div>4925 Independence Parkway, Suite 120, Tampa, Florida, 33634</div> <div>Telephone: (813) 261-8351 Fax: (813) 930-7332</div> | | | <div>Attachment 3 - Engineering Staff Hour Estimate</div> <div>SUMMARY</div> <div>South Cross Bayou WRF</div> <div>UV Disinfection System and Related Improvements Project</div> <div>22-Sep-11</div> | | | | | | | | | | | | |
| ITEM | | | CONSTRUCTION MANAGER | SENIOR PROJECT MANAGER | SENIOR CONSTRUCTION INSPECTOR | SENIOR ENGINEER | SR PROJECT ENGINEER | PROJECT ENGINEER | SR DESIGNER | ADMIN SUPPORT | TOTAL HOURS | SUBTOTAL PARSONS LABOR FEE | SUBCONSULTANTS | ODCs | TOTAL (LABOR + ODCs) |
| BASIC SERVICES | | | (hours) | (hours) | (hours) | (hours) | (hours) | (hours) | (hours) | (hours) | (hours) | (\$) | (\$) | (\$) | (\$) |
| TASK 1.0 PROJECT MANAGEMENT | | | 0 | 406 | 0 | 112 | 16 | 0 | 8 | 280 | 822 | \$142,121 | \$83,660 | \$7,178 | \$232,959 |
| TASK 2.0 CONCEPTUAL DESIGN SERVICES | | | 0 | 80 | 8 | 240 | 28 | 20 | 115 | 44 | 535 | \$96,325 | \$170,671 | \$4,865 | \$271,862 |
| TASK 3.0 BASIS OF DESIGN SERVICES | | | 0 | 32 | 0 | 152 | 32 | 64 | 258 | 36 | 574 | \$90,720 | \$46,330 | \$4,582 | \$141,632 |
| TASK 4.0 GEOTECHNICAL INVESTIGATION SERVICES | | | 0 | 10 | 0 | 20 | 16 | 0 | 8 | 8 | 62 | \$11,437 | \$34,033 | \$578 | \$46,047 |
| TASK 5.0 SURVEYING AND UNDERGROUND UTILITY LOCATE SERVICES | | | 0 | 4 | 0 | 8 | 0 | 0 | 8 | 4 | 24 | \$3,912 | \$39,500 | \$198 | \$43,609 |
| TASK 6.0 FINAL DESIGN SERVICES | | | 40 | 162 | 48 | 337 | 217 | 241 | 1508 | 104 | 2657 | \$402,021 | \$259,287 | \$20,150 | \$681,458 |
| TASK 7.0 PERMITTING ASSISTANCE | | | 0 | 66 | 0 | 156 | 0 | 0 | 59 | 38 | 319 | \$58,131 | \$96,976 | \$2,936 | \$158,043 |
| TASK 8.0 UV SYSTEM FINAL SPECIFICATIONS AND PRE-PURCHASE ASSISTANCE | | | 0 | 40 | 0 | 84 | 16 | 24 | 28 | 20 | 212 | \$38,636 | \$34,738 | \$1,951 | \$75,325 |
| TASK 9.0 BIDDING ASSISTANCE | | | 0 | 36 | 0 | 66 | 16 | 18 | 32 | 18 | 184 | \$33,158 | \$9,388 | \$1,675 | \$44,220 |
| TASK 10.0 CONSTRUCTION ADMINISTRATION AND OFFICE ENGINEERING | | | 0 | 408 | 120 | 660 | 180 | 395 | 26 | 152 | 1841 | \$357,570 | \$129,693 | \$19,104 | \$506,366 |
| TASK 11.0 CONSTRUCTION INSPECTION | | | 40 | 0 | 1816 | 16 | 16 | 16 | 0 | 176 | 2080 | \$276,224 | \$1,138 | \$14,081 | \$291,443 |
| TASK 12.0 FACTORY ACCEPTANCE TEST, LOOP CHECKOUT, AND STARTUP | | | 0 | 18 | 54 | 38 | 66 | 96 | 0 | 24 | 296 | \$48,929 | \$40,239 | \$2,471 | \$91,640 |
| TASK 13.0 RECORD DRAWINGS, O&M MANUAL SUPPLEMENT, AND TRAINING | | | 0 | 34 | 0 | 100 | 66 | 122 | 144 | 58 | 524 | \$82,931 | \$29,931 | \$4,659 | \$117,521 |
| TASK 14.0 ASSET MANAGEMENT ASSISTANCE | | | 0 | 0 | 0 | 40 | 0 | 0 | 0 | 40 | 80 | \$11,350 | \$0 | \$0 | \$11,350 |
| TOTAL BASIC SERVICES (TASKS 1 THRU 14) | | | 80 | 1296 | 2046 | 2029 | 669 | 994 | 2194 | 1002 | 10310 | \$1,653,464 | \$975,584 | \$84,427 | \$2,713,475 |
| CONTINGENCY SERVICES: | | | (hours) | (hours) | (hours) | (hours) | (hours) | (hours) | (hours) | (hours) | (hours) | (\$) | (\$) | (\$) | (\$) |
| 1) BOARD OF COUNTY COMMISSIONERS PRESENTATIONS | | | 0 | 10 | 0 | 20 | 5 | 15 | 0 | 10 | 60 | \$10,447 | \$0 | \$522 | \$10,969 |
| 2) LABORATORY ANALYSIS AND PROCESS SAMPLING | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | \$0 | \$15,000 | \$0 | \$15,000 |
| 3) CANOPY DESIGN | | | 0 | 8 | 4 | 60 | 12 | 6 | 124 | 6 | 220 | \$34,575 | \$13,335 | \$1,729 | \$49,639 |
| 4) SUPPORT FOR PUBLIC INFORMATION/INVOLVEMENT | | | 0 | 20 | 10 | 20 | 5 | 15 | 0 | 10 | 80 | \$14,106 | \$0 | \$705 | \$14,811 |
| 5) FDEP ERP MODIFICATION | | | 0 | 4 | 0 | 10 | 0 | 40 | 8 | 5 | 67 | \$10,212 | \$2,000 | \$511 | \$12,723 |
| 6) OTHER CONTINGENCY SERVICES (@2.5%) | | | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 0 | \$67,838 | \$0 | \$0 | \$67,838 |
| TOTAL CONTINGENCY SERVICES | | | 0 | 42 | 14 | 110 | 22 | 76 | 132 | 31 | 427 | \$137,178 | \$30,335 | \$3,467 | \$170,980 |
| PARSONS BILLING RATE (R) | | | \$ 178.85 | \$ 230.00 | \$ 135.94 | \$ 208.74 | \$ 145.20 | \$ 127.75 | \$ 75.00 | | | | | | |
| NOTES & COMMENTS | | | SUMMARY BASIC SERVICES FEES | | | | | | | | | | | | |
| | | | Item | | | | | | | | | | | FEE | |
| | | | Parsons labor charges | | | | | | | | | | | \$1,653,464 | |
| | | | Subconsultants | | | | | | | | | | | \$975,584 | |
| | | | ODCs | | | | | | | | | | | \$84,427 | |
| | | | TOTAL BASIC SERVICES | | | | | | | | | | | \$2,713,475 | |
| REVISIONS | | | SUMMARY OF CONTINGENCY SERVICE FEES | | | | | | | | | | | | |
| | | | Item | | | | | | | | | | | TOTAL | |
| | | | TOTAL CONTINGENCY SERVICES | | | | | | | | | | | \$170,980 | |
| | | | (not used) | | | | | | | | | | | | |
| | | | (not used) | | | | | | | | | | | | |
| | | | GRAND-TOTAL (Basic Services and Contingency Services) | | | | | | | | | | | \$2,884,455 | |
| (a) Average rate by category. Actual rates will vary by individual within each category | | | | | | | | | | | | | | | |

(a) Average rate by category. Actual rates will vary by individual within each category

PROJECT CONTROL FORM (PCF)

Original Request (0) or Revision (1, 2, 3, etc.): 0

Date (Only if Revision):

CAPITAL IMPROVEMENT PROGRAM - FY 10/11 (all costs in FY 10/11 Dollars)

NOTE: PCF Initiator to fill in the GREEN spaces, 'mouse-over' the red triangles to read comments; Administration to fill in the remainder.

Fund/Center: 0555 /6652200

/ *

0552 /6614900

Maximo No.: 1246780

Water ☐Sewer ☒SW ☐

* needed only if split project

Project Category:

A1 - 1246782

(Per CIP Budget Dev. Process)

PROJECT REQUEST:

Origination Date: 12/14/2010

Prepared By: William Harrington

Project Priority: 1 Now

Project Title: South Cross Bayou UV Disinfection System

Utilities Project No: 2056

Project Location: South Cross Bayou Water Reclamation Facility

FDOT/PW Project ID No.

NA

Project Description:

Project provides Ultra Violet disinfection for surface water discharge that meets requirements of regulatory agencies and complies with the mandate of the FDEP consent order. Project is mandated by consent order from the FDEP to provide disinfection for surface water discharge that complies with regulatory requirements relating to removal of disinfection byproducts associated with the use of chlorine for disinfection from discharges to surface waters. The project will ensure compliance with the requirements of the consent order. Consultant to be selected by CCNA RFP.

Project Justification:

Required by FDEP Consent Order

Revision Explanation:

BUDGET ESTIMATE:

| Project Components | FY 10 / 11 | FY 11 / 12 | FY 12 / 13 | FY 13 / 14 | FY 14 / 15 | FY 15 / 16 | TOTALS |
|-----------------------|--------------|--------------|---------------|------------|------------|------------|---------------|
| Professional Services | \$ 1,430,000 | \$ 2,500,000 | \$ 19,000,000 | | | | \$ 22,930,000 |
| Acquisition (Land) | | | | | | | \$ - |
| Construction | | | | | | | \$ - |
| Testing | | | | | | | \$ - |
| Other (explain) | | | | | | | \$ - |
| Total | \$ 1,430,000 | \$ 2,500,000 | \$ 19,000,000 | \$ - | \$ - | \$ - | \$ 22,930,000 |

APPROVALS:

Project Concept/Initiation:

Project Scope:

Funds Available:

Inclusion in CIP:

Robert M. Goude 2-2-11
Client Director *** Date

Jamie J. Hall 2/1/11
Director of Engineering Date

Stacy 2/4/11
Director of Finance Date

Kim B. Burt 2/4/11
Director of Utilities Date

ENGINEERING:

Consultant: N/A

Eng. Dept.

Contact/PM: Bill Harrington

In-House: X

Other:

(X or n/a)

(X or n/a)

Consultants Proposal:

Funds Available: ^{NA needed}

Consultant Proposal Approved:

Director of Engineering *** Date

Director of Finance Date

Director of Utilities *** Date

DISTRIBUTION:

SCHEDULE/DURATION: August 31, 2010/ 6 mo. From NTP

*** signatures required for revisions in scope

| PROJECT INITIATION FORM (PIF) DESCRIPTION AND COST | | | | | RECOMMENDED: | Department Director | On Hold |
|--|-------------------|-----------|--------------|---------------------------------|--|------------------------|--------------|
| | | | | | RECOMMENDED: | Finance Director | On Hold |
| | | | | | RECOMMENDED: | Utilities Director | On Hold |
| Category: | Sewer | | | SERVICE LEVEL: | PRIORITY: | | |
| Department: | South Cross Bayou | | | MANDATED | Funding Source Priority #: | 2 High | |
| Fund: | 555 | 552 | | | Department Priority #: | 1 Now | |
| Center: | 6652200 | 6614900 | | | CIP or O&M: | CIP | |
| Maximo #: | | | | | Project No.: | 2056 | Project Mgr: |
| Origination Date: | 1/27/2011 | | | Project Title: | South Cross Bayou UV Disinfection System | | |
| | | | | Consultant: | | | |
| DECISION UNIT TITLE: Sewer System Planning & Analysis | | | | | | | |
| ENGINEERING RESOURCES: | | | | OPERATIONAL COST CENTERS | | | |
| TOTAL COST: | | FY 10/11 | FY11/12 | Department: | South Cross | | |
| Professional Services | | | - | Fund: | 551 | | |
| Operating Expenses | | | - | Center: | 6112700 | | |
| Grants and Aid | | | - | | | | |
| Capital Outlay | | 1,430,000 | 2,500,000 | | | | |
| TOTAL: | \$ | 1,430,000 | \$ 2,500,000 | | | | |
| | | | | PROJECTED SAVINGS: | FY12/13 | FY 13/14 | |
| | | | | Operational | - | - | |
| | | | | Maintenance | - | - | |
| | | | | Electrical | - | - | |
| | | | | Chemical | - | - | |
| ENGINEERING TIME RESOURCES: | | | | OPERATING COSTS | | | |
| WEEKLY TIME (HOURS): | FY 10/11 | FY11/12 | | COST TYPE: | FY12/13 | FY 13/14 | |
| CIP & PLANNING | 16.00 | 16.00 | | CHEMICALS | | | |
| DESIGN | | | | ELECTRICAL | \$150,000.00 | \$150,000.00 | |
| CONSTRUCTION | | | | ANNUAL MAINTENANCE | \$20,000.00 | \$40,000.00 | |
| SURVEY | | | | FUEL | | | |
| ENVIRONMENTAL | | | | MISCELLANEOUS | \$5,000.00 | \$5,000.00 | |
| TOTAL HOURS/YEAR: | 832.00 | 832.00 | | TOTAL | \$175,000.00 | \$195,000.00 | |
| PERFORMANCE MEASURES: | | | | | | | |
| MEASURE DESCRIPTION | | | | FY 10/11 | FY11/12 | | |
| WORKLOAD: | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| IMPACT ON FY 10/11 (Project Justification): | | | | | | | |
| Project provides Ultra Violate disinfection for surface water discharge that meets requirements of regulatory agencies and complies with the mandate of the FDEP consent order. Project is mandated by consent order from the FDEP to provide disinfection for surface water discharge that complies with regulatory requirements relating to removal of disinfection byproducts associated with the use of chlorine for disinfection from discharges to surface waters. The project will ensure compliance with the requirements of the consent order. Consultant to be selected by CCNA RFP. | | | | | | | |
| IMPACT ON FY11/12 (Project Justification): | | | | | | | |
| Operational budget includes one FTE to be added to operations staff midway through FY 12/13. | | | | | | | |
| REVENUE IMPACT: | | | | | | | |
| Revenue Description: | FY 10/11 | FY11/12 | Narrative: | | | | |
| There is no impact to revenue | | | | | | | |
| | | | | | | | |
| | | | | | | | |

**PROJECT INITIATION FORM
DESCRIPTION AND COST
PAGE 2**

| | | | | | |
|--|-------------------|---------------------------------------|------------------------------------|---------|----------|
| Category: | Sewer | | | | |
| Department: | South Cross Bayou | Total Positions (Listed by Job Class) | | | |
| Funding Source Priority #: | 2 High | Job Class | Description | FY12/13 | FY 13/14 |
| Department Priority #: | 1 Now | | | | |
| | | EMT 1/CL12 | Electrical/Mechanical Technician 1 | 0.00 | 0.00 |
| | | | | 1.00 | 0.00 |
| | | | | 0.00 | 0.00 |
| | | | | 0.00 | 0.00 |
| | | | | 0.00 | 0.00 |
| | | | | 0.00 | 0.00 |
| | | | | 0.00 | 0.00 |
| | | | | 0.00 | 0.00 |
| | | | | 0.00 | 0.00 |
| | | | | 0.00 | 0.00 |
| | | | | 0.00 | 0.00 |
| | | | | 0.00 | 0.00 |
| | | | | 0.00 | 0.00 |
| | | | | 0.00 | 0.00 |
| | | | | 0.00 | 0.00 |
| | | | | 0.00 | 0.00 |
| | | | | 0.00 | 0.00 |
| | | | | 0.00 | 0.00 |
| | | | | 0.00 | 0.00 |
| | | TOTAL (page 2): | | | 1.00 |
| IMPACT ON FY10/11 (Project Justification): | | | | | |
| | | | | | |
| IMPACT ON FY11/12 (Project Justification): | | | | | |
| | | | | | |

PINELLAS COUNTY UTILITIES - SEWER SYSTEM - CAPITAL IMPROVEMENTS PROGRAM - FY 10/11

AMOUNTS IN THOUSANDS OF DOLLARS
Revision Date 6/30/2010

| PN | DOT-PW: EWO:# | Engineer Resp. | PROJECT NAME | TOTAL 09 thru 20 | Carry Over | Approved Budget 09/10 | Projected Budget 09/10 | 10/11 | 11/12 | 12/13 | 13/14 | 14/15 | 15/16 | 16/17 | 17/18 | 18/19 | 19/20 |
|-----------------------|------------------|-------------------|--|---------------------|---------------|-----------------------------|------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| RENEWAL & REPLACEMENT | | | 6614300 W.E. DUNN WRF | | | | | | | | | | | | | | |
| | | Hall | W.E. DUNN UPGRADES AND R & R | 5,350 | | | | 750 | 650 | 650 | 650 | 550 | 400 | 400 | 400 | 400 | 400 |
| | | Ibarra | ANNUAL CONTRACT-RCW IMPROVEMENTS | 1,100 | | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 1704 | | Slonena | REUSE MONITORING WELL-INSTALL / PLUG | 18 | | 3 | 3 | 3 | 3 | 3 | 3 | 3 | | | | | |
| 1807 | | Slonena | LAKE TARPON ASR CONSTRUCTION | 3,930 | 500 | 3,300 | 100 | 3,600 | 120 | 110 | | | | | | | |
| 1967A | | Slonena | LK TARPON RCW AUGMENTATION STUDY | 0 | | | | | | | | | | | | | |
| 1967B | | Slonena | LK TARPON RCW AUGMENTATION CONSTRUCTION | 140 | 130 | 140 | 30 | 110 | | | | | | | | | |
| | | | SUBTOTAL 6614300 | 10,538 | 630 | 3,543 | 233 | 4,563 | 873 | 863 | 753 | 753 | 500 | 500 | 500 | 500 | 500 |
| | | | CHECK | 10,538 | | | | | | | | | | | | | |
| RENEWAL & REPLACEMENT | | | 6614500 MODIFICATION/REHAB/EXTENSIONS | | | | | | | | | | | | | | |
| 1448 | | Gill | SEWER/RCW SUBAQUEOUS EVAL/REPLACE | 1,800 | | | | 400 | | 400 | 400 | 400 | | | | | |
| 1697 | | Joyce | ANNUAL CONTRACT PUMP STATIONS REHAB/IMP. | 3,760 | | | | 160 | 400 | 400 | 400 | 400 | 400 | 400 | 400 | 400 | 400 |
| | | Joyce | PUMP STATION REPLACEMENTS | 2,750 | | | | 160 | 650 | 650 | 650 | 650 | | | | | |
| 2030 | | Schafer | ANNUAL CONTRACT- SEWER NEW/REPLACE | 4,105 | | | 5 | 500 | 400 | 400 | 400 | 400 | 400 | 400 | 400 | 400 | 400 |
| New (old 1777) | | Schafer | ANNUAL CONTRACT-MANHOLE REHAB (COATING) | 4,100 | | 100 | | 500 | 400 | 400 | 400 | 400 | 400 | 400 | 400 | 400 | 400 |
| 1948 | | Schafer | ANNUAL CONTRACT-SEWER RELINING (NEW) | 5,550 | | 100 | | 1,000 | 1,000 | 750 | 400 | 400 | 400 | 400 | 400 | 400 | 400 |
| 1677 | | Schafer | ANNUAL CONTRACT-SWR EXTENSIONS (NEW ONLY) | 0 | 50 | 50 | | | | | | | | | | | |
| 1877 | | Schafer | ANNUAL CONTRACT-SEWER PIPELINE REPLACEMENTS | 0 | | 200 | | | | | | | | | | | |
| | | | SUBTOTAL 6614500 | 21,875 | 50 | 450 | 5 | 2,720 | 2,850 | 3,000 | 2,850 | 2,850 | 1,600 | 1,600 | 1,600 | 1,600 | 1,600 |
| | | | CHECK | 21,875 | | | | | | | | | | | | | |
| RENEWAL & REPLACEMENT | | | 6614900 SOUTH CROSS WRF | | | | | | | | | | | | | | |
| 1901A | | Hall | FINAL SLUDGE THICKENING IMPROVEMENTS | 3,000 | | | | 2500 | 500 | | | | | | | | |
| 1901B | | Engelmann | PRELIM-SLUDGE THICKENING IMPROVEMENTS | 4,500 | | | | 1000 | 3000 | 500 | | | | | | | |
| 1875 | | Hall | ELECTRICAL ENG @ VAR PCU FACILITIES (AAG) | 0 | 275 | | | | | | | | | | | | |
| 1924 | | | POWER STUDY/OPTIMIZATION FOR SCBWRF PHASE II | | | | | | | | | | | | | | |
| 1925 | | | SCBWRF SYMAX TO MODICON PLC UPGRADE | | | | | | | | | | | | | | |
| 1989 | | | SCB/DUNN/WRF MIRACULOUS MOTOR CORP (MMC) | | | | | | | | | | | | | | |
| 2003 | | | SOUTH TRAIN BLOWER INSTALLATION | | | | | | | | | | | | | | |
| | | Hall | SOUTH CROSS UPGRADES AND R & R | 19,000 | | | | 1,500 | 2,000 | 1,500 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 |
| 1956 | | | WATER RECLAMATION FACILITIES (KING) | | | | | | | | | | | | | | |
| 1978 | | | SCB MULTIPLE LOCATION ODOR CONTROL INSTALL | | | | | | | | | | | | | | |
| 1979 | | Ibarra | ANNUAL CONTRACT-RCW IMPROVEMENTS | 1,425 | | 130 | 126 | 130 | 130 | 130 | 130 | 130 | 130 | 130 | 130 | 130 | 130 |
| 1419 | 129501 | Slonena | INSTALL, PLUG REUSE MONITOR WELLS | 30 | | 5 | 5 | 5 | 5 | 5 | 5 | 5 | | | | | |
| 1752 | | Slonena | SO COUNTY RCW ASR TEST PROGRAM | 1,780 | 50 | 450 | 55 | 475 | 140 | 840 | 100 | 100 | 70 | | | | |
| | | Slonena | SOUTH CROSS MIT | 230 | | | | | 230 | | | | | | | | |
| | | | SUBTOTAL 6614900 | 29,966 | 325 | 585 | 186 | 5,610 | 6,005 | 2,975 | 2,235 | 2,235 | 2,200 | 2,130 | 2,130 | 2,130 | 2,130 |
| | | | CHECK | 29,966 | | | | | | | | | | | | | |

PINELLAS COUNTY UTILITIES - SEWER SYSTEM - CAPITAL IMPROVEMENTS PROGRAM - FY 10/11
 AMOUNTS IN THOUSANDS OF DOLLARS
 Revision Date 5/30/2010

| PN | DOT/PW: EWO# | Engineer Resp. | PROJECT NAME | TOTAL 09 thru 20 | Carry Over | Approved Budget 09/10 | Projected Budget 09/10 | 10/11 | 11/12 | 12/13 | 13/14 | 14/15 | 15/16 | 16/17 | 17/18 | 18/19 | 19/20 |
|----------------------------------|-----------------|-------------------|---|---|---------------|-----------------------------|------------------------------|--------|--------|-------|-------|-------|-------|-------|-------|-------|-------|
| RENEWAL & REPLACEMENT | | | | 6615200 GREASE DISPOSAL SYSTEM | | | | | | | | | | | | | |
| 1750 | | Engelmann | FOG - MISCELLANEOUS IMPROVEMENTS | 1,300 | | 100 | 150 | 250 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | | | SUBTOTAL 6615200 | 1,300 1,300 | 0 | 100 | 150 | 250 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | | | TOTAL FUND 0552 | 72,594 72,594 | 1,180 | 5,603 | 1,334 | 14,463 | 11,013 | 7,863 | 6,413 | 6,413 | 5,075 | 5,005 | 5,005 | 5,005 | 5,005 |
| | | | Carry Over | | 1,180 | | | 4,269 | | | | | | | | | |
| | | | | R&R Approved Budget - Projected Budget FY 09/10 | | | | | | | | | | | | | |
| | | | | SEWER CONSTRUCTION SERIES 2008 - FUND 0555 | | | | | | | | | | | | | |
| SEWER CONST. SERIES 2008 | | | | 6652200 TREATMENT PLANTS | | | | | | | | | | | | | |
| 1901 | | Engelmann | TWO-PHASE DIGESTER CONVERSION | 0 | | 3100 | | | | | | | | | | | |
| 1901A | | Hall | FINAL-SLUDGE THICKENING IMPROVEMENTS | 2,100 | | 1,000 | 600 | 1,500 | | | | | | | | | |
| 1901B | | Engelmann | PRELIM-SLUDGE THICKENING IMPROVEMENTS | 2,000 | | 1,000 | 1,000 | 1,000 | | | | | | | | | |
| 1901C | | Engelmann | CO-GENERATION PRELIM DESIGN | 176 | | | 141 | 35 | | | | | | | | | |
| | | Hall | SOUTH CROSS UPGRADES AND R & R | 1,750 | | 1,100 | 1,500 | 250 | | | | | | | | | |
| 1987 | | | RCW VALVE INSTALLATION | | | | | | | | | | | | | | |
| 1981 | | | SCB UPGRADES & R&R - 3 PHASES Gates/Grinders (1/3 under | | | | | | | | | | | | | | |
| | | | SCREENINGS COMPACTOR/RAIN COVER | | | | | | | | | | | | | | |
| | | | GENERATOR 1 BUSS TIE UPGRADE | | | | | | | | | | | | | | |
| | | | RADAR LEVEL CONTROL SENSOR UPGRADE | | | | | | | | | | | | | | |
| | | | 5KV SWITCHGEAR NT BLOWER | | | | | | | | | | | | | | |
| | | | METHANE SCRUBBER | | | | | | | | | | | | | | |
| | | | VACUUM CHLORINE SYSTEM | | | | | | | | | | | | | | |
| | | | SS DEWATERING BOX FILTER MEDIA UPGRADE | | | | | | | | | | | | | | |
| | | | CAUSTIC DRIP PH METERING SYSTEM | | | | | | | | | | | | | | |
| | | | ADDITIONAL STORAGE VESSEL | | | | | | | | | | | | | | |
| | | | DEWAT VIDEO SURVEILLANCE | | | | | | | | | | | | | | |
| | | | DEWATERING TRUCK SCALES | | | | | | | | | | | | | | |
| | | | GRIT SNAIL CONVEYORS-AUGER CONVERSION | | | | | | | | | | | | | | |
| 1978 | | | MULTIPLE LOCATION ODOR CONTROL | | | | | | | | | | | | | | |
| | | | UPGRADE BACKWASH FINAL SAND FILTERS | | | | | | | | | | | | | | |
| 1770 | | | COVERS FOR PRIMARY CLARIFIERS | | | | | | | | | | | | | | |
| | | Hall | W.E. DUNN UPGRADES AND R & R | 1,125 | | 225 | 400 | 725 | | | | | | | | | |
| | | | SLUDGE TANK COATING | | | | | | | | | | | | | | |
| | | | DEWATERING SYSTEM IMPROVEMENTS -POLYMER | | | | | | | | | | | | | | |
| | | | DEWATERING SYSTEM IMPROVEMENTS-PRESS PANEL | | | | | | | | | | | | | | |
| | | | SECURITY UPGRADES | | | | | | | | | | | | | | |
| | | | WAREHOUSE MATERIAL STORAGE IMPROVEMENTS | | | | | | | | | | | | | | |
| | | | SAND FILTERS | | | | | | | | | | | | | | |
| | | | POND LINER INVESTIGATION | | | | | | | | | | | | | | |
| | | | SUB TOTAL 6652200 | 7,151 | 0 | 6,425 | 3,641 | 3,510 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | | CHECK | 7,151 | | | | | | | | | | | | | |

PINELLAS COUNTY UTILITIES - SEWER SYSTEM - CAPITAL IMPROVEMENTS PROGRAM - FY 10/11

AMOUNTS IN THOUSANDS OF DOLLARS
Revision Date 11/24/2010

* First Letter indicates - New Project = N, Existing Project = E or Annual Program = A. Second Letter indicates status - Planning = P, Design = D or Construction = C

| PN | DOT/PW: EWO:# | Engineer Resp. | PROJECT NAME | Project Status | TOTAL 10 thru 21 | Carry Over | Approved Budget 10/11 | Projected Budget 10/11 | 11/12 | 12/13 | 13/14 | 14/15 | 15/16 | 16/17 | 17/18 | 18/19 | 19/20 | 20/21 |
|-------|------------------|-------------------|--|-------------------|---------------------|---------------|-----------------------------|------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | | | SEWER CONSTRUCTION SERIES 2005 - FUND 0555 | | | | | | | | | | | | | | | |
| | | | SEWER CONST. SERIES 2005 | | | | | | | | | | | | | | | |
| | | | 6652200 TREATMENT PLANTS | | | | | | | | | | | | | | | |
| 1901A | | Harrington | FINAL-SLUDGE THICKENING IMPROVEMENTS PHASE 1 | E | 1,500 | | 1,500 | 1,500 | | | | | | | | | | |
| 1901B | | Engelmann | PRELIM-SLUDGE THICKENING IMPROVEMENTS | E | 0 | | 1,000 | 0 | | | | | | | | | | |
| 1901C | | Engelmann | CO-GENERATION PRELIM DESIGN | E | 0 | | 35 | 0 | | | | | | | | | | |
| 1901A | | Harrington | SOUTH CROSS UPGRADES AND R & R | | 2,400 | | 250 | 2,400 | | | | | | | | | | |
| | | | MULTIPLE LOCATION ODOR CONTROL PHASE 3 & 4 | E, C | | | | (900) | | | | | | | | | | |
| | | | UV/OZONE | | | | | (1000) | | | | | | | | | | |
| | | | VACUUM CHLORINE SYSTEM | E | | | | (300) | | | | | | | | | | |
| | | | HEADWORKS PANEL UPGRADE | N | | | | (150) | | | | | | | | | | |
| | | | DIGESTER GAS FLOWMETER | N | | | | (12) | | | | | | | | | | |
| | | | DIGESTER BOILER UPGRADE | N | | | | | | | | | | | | | | |
| | | | GENERATOR 1 BUGS TIE UPGRADE | E | | | | | | | | | | | | | | |
| | | | RADAR LEVEL CONTROL SENSOR UPGRADE | E | | | | | | | | | | | | | | |
| | | | 5KV SWITCHGEAR NT BLOWER | E | | | | | | | | | | | | | | |
| | | | METHANE SCRUBBER | E | | | | | | | | | | | | | | |
| | | | SS DEWATERING BOX FILTER MEDIA UPGRADE | E | | | | | | | | | | | | | | |
| | | | CAUSTIC DRIP PH METERING SYSTEM | E | | | | | | | | | | | | | | |
| | | | DEWAT VIDEO SURVEILLANCE | E | | | | | | | | | | | | | | |
| | | | GRIT SNAIL CONVEYORS AUGER CONVERSION | E | | | | | | | | | | | | | | |
| | | | UPGRADE BACKWASH FINAL SAND FILTERS | E | | | | | | | | | | | | | | |
| | | | COVERS FOR PRIMARY CLARIFIERS | E | | | | | | | | | | | | | | |
| | | | SCREENINGS COMPACTOR/RAIN COVER | E | | | | | | | | | | | | | | |
| | | Harrington | W.E. DUNN UPGRADES AND R & R | | 2,100 | | 725 | 2,100 | | | | | | | | | | |
| | | | SAND FILTERS | E, D | | | | (800) | | | | | | | | | | |
| | | | DEWATERING SYSTEM IMPROVEMENTS -POLYMER | E, D | | | | (400) | | | | | | | | | | |
| | | | DEWATERING SYSTEM IMPROVEMENTS-PRESS PANEL | E, D | | | | (150) | | | | | | | | | | |
| | | | CHEMSCAN INSTALLATION | N, D | | | | (300) | | | | | | | | | | |
| | | | CLARIFIER SLUDGE MONITORING SYSTEM | N, D | | | | (150) | | | | | | | | | | |
| | | | POND LINER INVESTIGATION | | | | | | | | | | | | | | | |
| | | | NORTH COUNTY RCW VALVE AUTOMATION | N, D | | | | (300) | | | | | | | | | | |
| | | | SUB TOTAL 6652200 | | 6,000 | 0 | 3,510 | 6,000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | | CHECK | | 6,000 | | | | | | | | | | | | | |

11/12

Revision Date 11/24/2010

11/24/2010

* First Letter indicates - New Project = N, Existing Project = E, or Annual Program = A. Second Letter indicates status - Planning = P, Design = D or Construction = C.

Print Date 1/27/2011