

February 10, 2023

Laura Yonkers, PE, CFM
lyonkers@ircgov.com
Indian River County
Engineering – Stormwater Division
1801 27th Street, Building A
Vero Beach, FL 32960

RE: Exhibit A – Scope of Work
Work Order No. 3 for Egret Marsh Headworks Professional Services
Continuing Engineering Services Agreement (Amendment No.1)
Jones Edmunds Opportunity No. 95479-013-23

Dear Ms. Yonkers:

Thank you for this opportunity to work with you and your colleagues on the Egret Marsh Headworks project. This Work Order will be completed in accordance with the Agreement for Continuing Engineering Services between Jones Edmunds & Associates, Inc. (CONSULTANT) and Indian River County (COUNTY) dated April 17, 2018, as renewed by Amendment No. 1 expiring April 16, 2023 (Agreement).

BACKGROUND

The COUNTY has two stormwater treatment systems that use an Algal Turf Scrubber (ATS) to remove nutrients: Egret Marsh Stormwater Park and Osprey Marsh Wetlands. This project is proposed to replace the distribution header pipe on the ATS for the Egret Marsh Stormwater Park.

The current Egret Marsh ATS system allows water to flow from the headworks by gravity to a tee and then split the flow to two buried distribution manifolds. Each distribution manifold is approximately 168 linear feet, and is shown on the plans to reduce in size from 36-inch high-density polyethylene (HDPE) to 18-inch HDPE, to 12-inch HDPE, to 10-inch HDPE, and ultimately to 8-inch HDPE. Each manifold connects to 57 laterals that increase in size from 4-inch HDPE to 6-inch HDPE, to 8-inch HDPE (see attached design drawings C-5A and C-5B). The lateral transitions from HDPE to PVC piping. Each lateral terminates with a Valterra PVC knife gate.

The COUNTY noted that the current distribution manifold is leaking water. The ATS concrete slab may also be leaking, and the concrete joints may need to be resealed.

The operation and maintenance of the current manifold system can be laborious given the number of valved laterals and their locations underground. The COUNTY would like to replace the distribution manifold system with an improved aboveground system that

provides even flow distribution across the ATS, with fewer valves, simpler operation, and less maintenance.

Work performed under this Work Order will include developing Contract Documents for developing the Egret Marsh Headworks design and performing the ATS concrete slab repair and joint sealing. In addition, certified signed & sealed as-builts will be provided.

EXHIBIT A SCOPE OF WORK

TASK 1 – PROJECT MANAGEMENT, MEETINGS, AND COMMUNICATIONS

The CONSULTANT will be involved in project management with the COUNTY throughout the project. Project management will include planning, coordination, communications, accounting, and general reporting.

In addition, the CONSULTANT proposes meetings as follows:

A Kickoff Meeting with the COUNTY. The Kickoff Meeting will address the following items:

- Identify the roles and responsibilities for the CONSULTANT and COUNTY personnel.
- Review the project purpose and objectives.
- Discuss critical success factors and County's vision for the project.
- Discuss available data. We will provide a list of data we may need noting we have received available drawings already.
- Review the project schedule.
- Discuss deliverables.

The CONSULTANT will participate in one additional deliverables review virtual meeting during the Task 2 design phase of the project (timing to be determined by COUNTY). The CONSULTANT team will participate with COUNTY staff to note and address suggestions and comments on the deliverables.

The CONSULTANT will also communicate with the COUNTY via telephone, email, and written correspondence on a regular and on-going basis.

COUNTY Responsibility:

- Meet with the CONSULTANT.
- Address data requests.

Deliverables:

- Data request for Kickoff Meeting.
- Meeting agendas and summaries.

TASK 2 – BASIS OF DESIGN

The CONSULTANT will develop a Basis of Design Technical Memorandum (TM) and Contract Documents (Drawings and Specifications) for the project. No permit applications are expected since this is assumed to be a maintenance project. The TM will present conditions, calculations, and concepts.

The Drawings will consist of General, Civil, and Structural Drawings. No electrical engineering is expected. Drawings will be prepared using the CONSULTANT's presentation standards. COUNTY-provided project details will be used to the extent practical. The preliminary lists of drawings and specifications below are the basis for our design fee estimate.

Drawing No.	Title
G-1	Cover Sheet
G-2	Drawing Index, Legend, and Abbreviations
G-3	General Notes
C-1	Existing Conditions and Demolition Plan
C-2 to C-3	Distribution Manifold Plan
C-4 to C-5	Distribution Manifold Details
S-1	Structural Notes
S-2	Structural Plan
S-3 to S-4	Structural Details

- Site plan sheets will be prepared with the following scales: Horizontal: 1 inch = 20 feet (full-size 22-x-34-inch); and 1 inch = 40 feet (half-size sheets 11-x-17-inch).
- Sections and details will be prepared with the following scales: Vertical: 1 inch = 5 feet (full-size 22-x-34-inch); and 1 inch = 10 feet (half-size sheets 11-x-17-inch).

The CONSULTANT will develop one set of Technical Specifications in the Construction Standards Institute 16-Division format. The Specifications will be in the CONSULTANT's standard format and will be tailored to the needs of this project.

- Division 0 – Front End Documents (provided by the COUNTY)
- Division 1 – General Requirements
- Division 2 – Site Construction
- Division 3 – Concrete
- Division 9 – Finishes (Painting and Coating)
- Division 15 – Mechanical (Piping and Utilities)

Task 2 will consist of three submittals – Basis of Design TM, 75%, and Final Design deliverables. The CONSULTANT will participate in a review meeting scheduled during Task 2 at the County’s discretion to discuss and obtain comments from COUNTY following Submittals. Changes agreed to will be incorporated into the Final Design Submittal documents.

BASIS OF DESIGN TM

The TM will be submitted to County for review and comment and will include the following:

- Summary of relevant existing conditions.
- Assumptions.
- Hydraulic calculations for the new headworks.
- Conceptual sketches of new aboveground headworks alternatives that provide even flow distribution across the ATS with fewer valves, simpler operation, and less maintenance.
- Sketches supporting ATS concrete slab repair and joint sealing.
- Engineer’s Opinion of Probable Construction Cost.

COUNTY Responsibility:

- Review and provide feedback on the Basis of Design TM.
- Possible meeting with the CONSULTANT to review the Basis of Design TM.

Deliverables:

- One electronic copy (.pdf) of the Draft and Final Basis of Design TM.

Key Assumptions:

- The COUNTY will require a 2-week minimum review time of the submittal.

75% DESIGN SUBMITTAL

The 75% Design Submittal Package will be submitted to the COUNTY for review and comment and will include the following:

- Design Drawings – Draft versions of the sheets listed in the table above.
- Technical Specifications – A Table of Contents will be included in the 75% design.
- Engineer’s Opinion of Probable Construction Cost.

COUNTY Responsibility:

- Review and provide feedback on the 75% Submittal
- Possible meeting with the CONSULTANT to review the 75% Submittal

Deliverables:

- One electronic copy (.dwf) of 75% Design Drawings.
- Technical Specifications Table of Contents.

- 75% Review Meeting Summary (optional).

Key Assumptions:

- This project will not require any permitting or geotechnical engineering.
- Repairs recommended to the slab will not require a structural engineer.
- The COUNTY will require a 2-week minimum review time of the submittal.

FINAL DESIGN SUBMITTAL

The Final Design Submittal Package will be submitted to the COUNTY and will include the following:

- Final Design Documents: Updated Drawings and Specifications from the 75% Submittal and incorporation of any COUNTY comments.
- Updated Engineer's Opinion of Probable Construction Cost.

COUNTY Responsibility:

- Review and provide feedback and confirm Final Design is bid-ready.
- Possible meeting with the CONSULTANT to review the Final Design Submittal.

Deliverables:

- One electronic copy (.dwf), two signed-and-sealed full-size, and four half-size copies of the Final Design Drawings, and two signed-and-sealed copies of the Technical Specifications.
- One electronic copy (.pdf) of the updated Engineer's Opinion of Probable Construction Cost.

Key Assumptions:

- Final Design will be submitted following the COUNTY's approval of revisions.
- Addressing comments will take approximately 2 weeks.

TASK 3 – CONSTRUCTION ASSISTANCE

The CONSULTANT will provide the following services during the construction phase of the project:

- Provide and certify as-built drawings based on a signed-and-sealed survey of the completed project.

COUNTY Responsibility:

- The COUNTY will provide necessary support for the Contractor to have access to the site and facilities to complete construction through County acceptance of the project.
- The COUNTY will conduct weekly, or more frequent, construction inspections.
- The COUNTY will conduct shop drawing reviews

- The COUNTY will provide engineering and design clarifications to Contractor Requests for Information (RFIs)

Deliverables:

- One electronic copy (.dwf), two signed-and-sealed full-size and four half-size copies of the As-built Drawings developed from Contractor-provided as-built survey.

Key Assumptions:

- The COUNTY will provide inspection services
- Construction will be completed within 3 months of the Contractor’s receipt of the COUNTY’s Notice to Proceed.

SCHEDULE

The proposed project milestone schedule is provided in the table below.

Task	Duration (weeks)	Weeks from Notice to Proceed
Task 1 – Project Management, Meetings and Communications	ALL	ALL
Task 2 – Design – Basis of Design TM	4	4
Task 2 – Design – 75%	8	10
Task 2 – Design - Final	6	16
Task 3 – Construction Assistance (As-builts)	2	TBD

Note: The proposed scheduled is based on 2-week review periods by the COUNTY of project deliverables.

COMPENSATION

We propose to provide the services in this Work Order No.3 on a lump-sum basis in accordance with the terms of the Agreement for a fee of **\$81,619** as shown below and on Exhibit B Fee Schedule. This fee estimate considers the assumptions noted above with each task.

Task	Lump Sum Fee
Task 1 – Project Management, Meetings and Communications	\$14,632
Task 2 – Design	\$64,000
Task 3 – Construction Assistance (As-builts)	\$2,987
Total	\$81,619

Laura Yonkers, PE, CFM
February, 2023
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If you have any questions or comments, please contact me at (561) 267-8535 or via email at blynch@jonesedmunds.com.

Sincerely,

William H. Lynch, PE
Senior Consultant | Vice President

Mark Erwin, PE
Senior Project Manager

Attachments: Exhibit B Fee Schedule
Drawings C-5A and C-5B

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