TASK ORDER NO. 11

Engineering services to support the City of Lake Worth Beach

1.0 **Project Description**:

The City desires the Consultant to provide those services as identified herein and generally described as: **Engineering services to support the City of Lake Worth Beach.** (the "Project"). The Project is described in the consultant's proposal, dated November, 2022, and is attached hereto as Exhibit "1" and incorporated herein.

2.0 Scope

Under this Task Order, the Consultant will provide professional services to the City as detailed in the Consultant's proposal attached hereto and incorporated herein as Exhibit "1".

3.0 Schedule

The services to be provided under this Task Order shall be completed within <u>365</u> calendar days from the City's approval of this Task Order or the issuance of a Notice to Proceed.

4.0 Compensation

This Task Order is issued for a time and expense, not to exceed amount of **\$109,824**. The attached proposal identifies all costs and expenses anticipated in the time and expense, not to exceed amount.

5.0 Project Manager

The Project Manager for the Consultant is <u>Tarek El-Sadek</u>, phone: <u>561-471-4029 x 247</u>; email: <u>telsadek@ecfconsultants.com</u>; and, the Project Manager for the City is <u>Ashley Sirdar</u>, phone: <u>561-586-1694</u>; email: <u>Asirdar@LakeWorthBeachfl.gov</u>.

6.0 Progress Meetings

The Consultant shall schedule periodic progress review meetings with the City Project Manager as necessary but every 30 days as a minimum.

7.0 Authorization

This Task Order is issued in compliance with the Consultants' Competition Negotiation Act, section 287.055, Florida Statutes, and pursuant to the Agreement for Professional Services between the City of Lake Worth and the Consultant, dated <u>March 16th, 2018</u> ("Agreement" hereafter). If there are any conflicts between the terms and conditions of this Task Order and the Agreement, the terms and conditions of the Agreement shall prevail; however, the specific scope of services set forth in this Task Order shall take precedence over any other more general description of services.

IN WITNESS WHEREOF the parties hereto have made and executed this Task Order No. 11 on the day and year first above written.

CITY OF LAKE WORTH BEACH, FLORIDA

	By: Betty Resch, Mayor
ATTEST:	
By: Deborah M. Andrea, City Clerk	
APPROVED AS TO FORM AND LEGAL SUFFICIENCY:	APPROVED FOR FINANCIAL SUFFICIENCY
By: Glen J. Torcivia, City Attorney	By: Bruce T. Miller, Financial Services Director
CONTRACTOR:	E.C. Fennell, PA
Corporate Seal]	Print Name: Jolie Gonzalez Title: Director Distribution
STATE OF	
who is personally known to	day of November, 2022, vsically present, as Director (title), of E.C. this authorized to do business in the State of Florida, and me or who has produced the following is identification:
Notary Public	Print Name: My commission expires:



EXHIBIT "1" Contractors Proposal



City of Lake Worth Beach Engineering Proposal

Project Description

This project includes providing engineering services to support the City of Lake Worth Beach. ECF will be providing full time engineering support one- 8 hour day per week and as needed throughout the rest of the week. ECF will also be identifying improvement possibilities for connections between circuits for relability and constructability improvement.

Scope of Work

This project will include the engineering support for all on going Distribution Engineering projects in City of Lake Worth Beach territory as well as proposed projects in the future. All requests to ECF are to be sent in a written request prior to any services. Work will not be invoiced to this PO for any work that has an existing PO. ECF with assist with knowledge of Distribution Design processes, procedures and guidelines, and ability to design and review work for compliance with standards, accuracy, and appropriate cost. ECF will also assist with project management and design for storm hardening to 145 mph criteria and ensure that construction standards that are provided by the City of Lake Worth Beach will be applied during the design of all projects and will meet NESC guidelines. ECF will provde engineering support during construction.

Below is a breakdown of the tasks provided:

Assists in overseeing the execution of the turnkey and non-turnkey engineering designs throughout the design process and to protect the City of Lake Worth Beach's interests by ensuring that the design team is adhering to the program specifications, design guidelines and standards for all assigned projects.

Design Project Guidelines

ECF will review these guidelines for ECF projects as well as all Lake Worth Beach distribution engineering projects.

Projected Deliverable(s):

- Design Criteria
- Construction Drawing 60%, 90%, 100%, IFC
- Estimated hours (monthly breakdowns)
- Project construction Estimates (both materials and labor)

Information review from all standards and project meetings including all data analysis and site visit entries. Summation of project Design Criteria for City of Lake Worth review and approval. Proposed final design according to designated design standards and procedures.

Guarantee scope and Design Criteria is up to standard and properly approved by City of Lake Worth. Will



provide detailed base design for engineering and ECF will provide continuous updates throughout life of the project.

Below is the summary of activities for the overhead Feeder Design

- 3-A Drafting department to create background drawing from GIS system or existing CAD drawings
- **3-B** Field Investigator to gathering the following information
 - Pole location
 - Pole type
 - Span distance
 - o Heights attachments when applicable
 - Framing
 - Equipment on pole -Including franchise utilities, quantity, estimated size and type
 - Accessibility
- <u>3-C</u> Consolidate and process Data-from field and CLWB
- <u>3-D</u> Conceptual Design to show in construction drawing all below grade utilities show on the Sunshine design ticket within 10 ft radius of proposed pole location.
- 3-E Conceptual Design Approval/CLBW
- **3-F** Engineering Design
 - o Calculate load
 - Determine wind loading using Pole Foreman
 - o Research equipment to provide recommendations to CLBW
 - CLWB will provide equipment list of pole line hardware and materials. ECF to supplement with any additional materials needed to complete the project.
 - Research environmental restrictions as to location of cable and depth
 - o Review lightning protection (LA) and add where needed
 - Apply applicable CLBW standards
 - Inventory material
 - Create construction drawing and notes
- **3-G** Add/modify construction framing standards as required to complete the project. CLWB to provide current framing and UG standards in CADD for review/reference.
- **3-H** Provide pole bore sheets for each Ductile Iron or Concrete pole required to complete the project.
- **3-I** Provide specifications for construction
- **3-J** ECF to provide complete inventory list of materials required to complete the project. CLWB to provide list of approved/stocked materials to be utilized during construction.

Expectations:



- CLWB to provide load data and GIS information
- ECF will incorporate all City of Lake Worth's standards when possible and follow ECF protocol and standards at all times.
- CLWB to provide current construction standards

Construction & Permitting:

ECF will also assist with construction and permitting for ECF projects as well as all Distribution projects

Projected Deliverable(s):

- ECF will meet all possible overhead/underground construction standards for City of Lake Worth and ECF guidelines.
- All standards will be up to date and reflect current systems.
- Will maintain an updated log of all key milestones and action items and answer all questions with pre-construction meetings.
- **<u>5-A</u>** ECF will initiate and attend Pre-construction meeting to answer all questions and ensure all standards are being planned for and met.
- **<u>5-B</u>** ECF to provide a 4 hours a week for the length of construction of each circuit to provide engineering support during construction. This will be answering engineering questions or RFIs.
- **<u>5-C</u>** Review and update City of Lake Worth Beach's construction standards for overhead pole top, equipment construction, guying and anchoring construction, grounding and arresters construction, secondary and services construction as required.
- <u>5-D</u> Review project permits and determine/crosscheck as needed. Identify additional agencies or utilities that require permits from other agencies during construction.
- **5-E** Create list of items of material items projected to be required for each phase of project. Listed by structure type, description identification, manufacturer and catalog number or proper specifications required. Quantity estimates of all items required with appropriate projections applies to allow for any possible breakage or loss per classified material which will be up to standards and forwarded to City of Lake Worth accordingly.
- **<u>5-F</u>** ECF will generate associated drawings required during the construction phase of project meeting CLWU and ECF standards as fit.
- <u>5-G</u> All objectives established for project will be met to highest quality. ECF will assure this by collecting project-related data throughout the life of the project including, design and structure criteria, supporting calculations and equipment sizing. Which can and will be submitted to CLWU if asked or needed.



<u>5-H</u> Design and construction reviews will be compiled including preliminary plan drawings, design criteria and supporting data and calculations. All reviewed comments will be addressed and any changes needed will be incorporated.

<u>5-I</u> Completed Construction Follow ups of updated construction drawings with any additional changes that happened throughout life of project. Along with any additional assistance needed for close-out documentation of project with incorporated record drawings.

Expectations: CLWB will provide prompt communication regarding RFI's that come from the construction contractor

Cost Estimate 8/1/2022-7/31/2023

Engineering Assistance	People	Hours	Total
Physically sit at the City of Lake Worth Beach once a		416 *	
week (Friday)	1	\$132	\$54,912
Available on an as-needed basis for questions and		416 *	
consultation		\$132	\$54,912
Total Cost NTE			\$ 109,824

Job Requirements

The Engineering Specialist plays a large role in the pre-construction phase of projects, which includes functions such as providing feedback to the design team and required, and reviewing the quality of the construction and permit drawings, supporting the Project Managers with engineering designs and systems questions.

Qualification:

- Solid knowledge of Distribution Design processes, procedures and guidelines, and ability to review work for compliance with standards, accuracy, and appropriate cost.
- Ability to effectively communicate with a wide-ranging group of people including but not limited to Project Managers, Design Standard Group, Distribution Planners, and other project stakeholders.
- Capable to confer with other groups in order to provide technical support to the turnkey and non-turnkey design groups.
- Intermediate to Advanced excel skills are preferred but not required.

Functions included:

- Provide support to the project Managers with the generation of the Jor Order, assignment of the work to the appropriated design team lead.
- General reporting to Management



- Provide weekly and monthly updates
- Assist with all inquiries, concerns and design scope changes.
- Review design scope changes with management
- Review and approve conceptual and preliminary designs
- Review permit drawings and ensure all required notes and information as required by the agency meet the agency requirement.
- Redline preliminary design with engineer feedback and send back to designer
- Assist in investigating systematic design quality issues and determine the nature and root cause of the problem. Properly document engineering-related design problems and resolutions.

Other duties include:

- Project evaluation, feasibility, and reviews
- Review projects feasibility with Engineering Lead and designer prior to the completion of the preliminary design.
- Attend Pre-construction meetings as required
- Ensure that the design is done well and within applicable standards
- Ensure design comments are addressed in a timely manner
- Ensure non-turnkey designers are properly documenting delays
- Provide technical and functional support as needed to the Project Managers as needed
- Monitor designs compliance with program specifications, scope, guidelines, and standards.
- A high-level review of completed design.
- Inspects the completed design, timelines, and other deliverables produced to support the project(s).
- Provide feedback and coaching when necessary.

Expectations for Design Review

- Ensure design quality meets CLWB design standard and program expectations.
- Review Permit Drawings and Documents and ensure designers are providing quality permit drawings for permit application.
- Provide clear and concise guidance and feedback to designers and COS as needed
- Markup any issues
- Ask Questions & get answers.
- Return comments to engineer vendor and request specific action
- Confirm actions taken regarding comments
- Log comment.

Typical Engineering Calculations to Undestand

- Voltage Drop and Flicker
- Cable Pull Software Used
- Pole Forman
- Visio
- AutoCad (not required but preferred)



• Microsoft office