

CITY OF DELRAY BEACH

PROPOSAL FOR CEI SERVICES

FOR

Reclaimed Water Main Area 10

SUBMITTED BY:



2/25/2021

CITY OF DELRAY BEACH

Reclaimed Water Main Area 10

Agreement for Construction Engineering & Inspection Services

I. PROJECT DESCRIPTION

This Service Authorization provides Construction Engineering & Inspection (CEI) services for the construction of the Reclaimed Water Main Area 10 improvements. The water main will be installed via Horizontal Directional Drilling, Jack and Bore, and Open Cut. The following is a general list of the work included:

- a. Mobilize and MOT
- b. Excavate, Dewater, Backfill
- c. Install new reclaimed water main HDPE piping through directional bore and jack & bore for FEC location, gate valves, air release valves, shutoff valves and other pipe fittings.
- d. Install sub-base and base for open cut roadway.
- e. Repair all damaged concrete sidewalks, curb, valley gutter and asphalt of roadway
- f. Mill & resurface asphalt where necessary.
- g. Put in place all sod and Landscape.
- h. Connect all utilities.

The work is located in the City of Delray Beach right-of-way. The project will be constructed in two (2) phases per plans. The budget proposed in this agreement is based on a contract duration of 150 days to substantial completion and 30 additional days to final completion.

SCOPE OF SERVICES

Phase 1 – Construction Administration and CEI Inspection Services

Consultant shall provide CEI services as identified and further detailed below:

Task 1.1 – Constructability Field Review

CEI shall conduct a field review of the Design Drawings with the Awarded Contractor to determine if there are any constructability issues, conflicts not shown, or any Contractor proposed cost saving changes. The intent will be to address these items prior to construction. CEI will coordinate a meeting with the City and Engineer of Record to discuss any discovered issues and recommendations to resolve.

Task 1.2 – Preconstruction Conference

CEI shall prepare the agenda and facilitate the pre-construction conference with the City's Awarded Contractor and City staff. CEI will coordinate with all associated Permitting Agencies to attend the meeting. CEI will prepare and issue written minutes of meeting.

Task 1.3 – Submittal Review

CEI shall receive, log, and review all Shop Drawings and Product Submittals for general conformance with the design intent and provisions of the Contract Documents. CEI will review and return submittals to City and Contractor within 14 days of receipt. These reviews will include submittals specific to Horizontal Directional Drilling and Jack and Bore in coordination with the FEC Railway. Any substitutions from the requirements of the City's Standard Details and those shown within the construction plans to be presented to the City for review / approval.

Task 1.4 – Progress Meetings

CEI shall conduct One (1) Formal Progress Meeting per month with an agenda and written summary of the issues discussed, and One (1) Field Mid-Month Progress Meeting conducted by CEI's Project Administrator. Formal Monthly Progress meetings will be conducted by the Construction Manager with the Project Administrator and Inspector also in attendance depending on work activities. The CEI may prepare meeting agendas and minutes at the discretion of the City Construction Manager. The Formal Monthly Progress Meetings will be held at the City facilities or virtually upon City request.

Task 1.5 – Pay Estimate Review

CEI shall review monthly payment applications submitted in a format acceptable to the City. Consultant shall verify the quantities as represented on the pay request and make a recommendation to the City to proceed with the payment as requested, or as modified based on CEI review. CEI will prepare Contractor ratings with each pay application. A 180-day total construction period is assumed for budgeting this task.

Task 1.6 – Construction Administration

CEI's Construction Manager shall establish the Lines of Communication with City and Contractor as the lead point of contact for all written communication administered on the project. The CEI's Construction Manager will develop FTP Site for the Project team to access documents and visit the project site an average of 8 hours a month for the six (6) month construction time frame.

Task 1.7 – Construction Schedule Review

CEI shall monitor the construction schedule monthly and report to the City conditions that may cause delay in completion. If Schedule slippage is identified, the CEI will notify

the Contractor in writing and request the Contractor to provide a recovery plan.

Task 1.8 - Construction Clarifications

CEI shall respond in writing to Contractor's Request for Information (RFI) regarding the design documents. Consultant shall coordinate with Design Engineer as required to issue design interpretations and clarifications of the Contract Documents, along with associated support materials, as requested by the Contractor. These interpretations will be rendered and a response prepared and submitted to the Contractor in a timely manner.

Task 1.9 – Construction Claims and Changes

CEI shall prepare and negotiate City requested or Contractor initiated Change Orders (CO) and Work Change Directives (WCD) as required.

CEI will also review and respond to all Contractor Delay Claims or Requests for Compensation within the established Construction Contract Period, and respond per the Contract Documents.

Task 1.10 – Quality Assurance (QA) Program

CEI shall develop a QA Plan and furnish the QA Plan to the Construction Project Manager for notification. The QA Plan shall detail the procedures, evaluation criteria, and instructions of the Consultant's organization for providing services pursuant to this Agreement.

CEI shall maintain all necessary records for QA Plan compliance and initiate QA Plan Review to make any necessary revisions during the Construction Project.

Task 1.11 – Material Sampling Tracking & Oversight

CEI shall track and oversee Contractor's Testing Lab for all specified Material Sampling and Testing and verify Chain of Custody. CEI shall also review signed and sealed reports from testing agencies for compliance.

Task 1.12 - Certification of Construction Completion

CEI shall notify the City and Contractor in writing once the Project is deemed to meet Contract Completion milestones. CEI shall certify based on visible project features inspections, and review of testing reports that the project was constructed in General Conformance with the Plans & Specifications, and all Permit Conditions.

Task 1.13 - Substantial and Final Inspections

In conjunction with City staff, CEI shall make preliminary and final inspections and assist in the preparation of a Project Completion "punch list" to achieve Final Completion. CEI shall review completion of identified punch list items to assist in the determination that Final Completion has been achieved by the Contractor. CEI shall advise the City and provide formal notice to the Contractor once Final Acceptance of the project has been reached in accordance with the Contract Documents.

Task 1.14 – Record Drawings

CEI shall review monthly progressive As-built Record Drawings from the Contractor and provide comments to achieve the Final Set of As-built Record Drawings upon Final Completion.

Task 1.15 – Inspection Services

CEI shall provide One (1) Part-Time Project Engineer during construction of the work for the entire length of the construction contract (180-days) plus 14 days before construction for submittal reviews and pre-construction meeting, and 14 days after construction for project closeout. The total Project Engineer shall be a total of 80 hours.

CEI shall provide One (1) Full Time Senior Inspector for the construction contract (150-day construction period). The intent of this position will be to have a single inspector for the duration of the project, unless that individual is out on vacation, sick leave, etc. This will help ensure project continuity. That inspector will reduce to Part-Time (60%) upon substantial completion of the project. The inspector's hours shall be full-time (40 hours/week) for the entire 150 day construction period for a total of 858 hours plus part-time (24 hours/week) for the 30 days after substantial completion for a total of 103 hours. The grand total for the Inspector will be 961 hours.

Activities performed by Consultant under this task consist of furnishing Inspectors during the construction of the project, to observe the quality of the construction work, and to determine, in general, if the construction is proceeding in accordance with the Contract Documents so that an engineering certification can be made regarding the construction of the proposed improvements.

The Senior Inspector shall:

- Serve as Consultant's liaison with construction Contractor, working principally through the Contractor's Superintendent and assisting him in understanding the intent of the Contract Documents.
- Conduct on-site observations of the work in progress to assist in determining if the work is proceeding in accordance with the Contract Documents and that completed work conforms to the Contract Documents. Consultant's Construction

Manager shall report, in writing to the City, whenever Consultant believes that work is unsatisfactory, faulty or defective, or does not conform to the Contract Documents, or does not meet the requirements of inspections, tests or approval required to be made, or has been damaged prior to final payment.

- Accompany visiting inspectors representing permit or regulatory agencies having jurisdiction over the project. Record in writing, the outcome of these inspections and report same to City.
- Consider and evaluate construction Contractor's suggestions for modifications in drawings or specifications and report them to the City, in writing. CEI's Construction Manager shall make recommendation for action by the City.
- Review Contractor's As-Built Record Drawing information on a monthly basis to confirm proper updates are being made.
- Assist the Contractor in coordinating all required materials and density testing, as required by the Construction Documents.
- Inspector shall work with the Contractor and develop a Daily Pay Item Quantity Sheet (based on the approved Schedule of Values) to be reviewed and accepted each day agreeing to the quantities of Schedule of Value items installed.
- Inspector will also act as the field representative for public interaction. If members of the community have questions this individual should be able to answer project related questions and concerns.

LIMITATIONS OF AUTHORITY

Limitations of Inspectors Authority. Except upon written instructions from the City, Inspector:

1. Shall not exceed limitations on CEI's authority as set forth in the Contract Documents.
2. Shall not undertake any of the responsibilities of Contractor, Subcontractors or CEI Construction Manager, or expedite the Work.
3. Shall not issue directions relative to any aspect of the means, methods, techniques, sequences or procedures of construction unless such is specifically called for in the Contract Documents.
4. Shall observe and oversee but not participate in specialized field or laboratory tests.

Phase 2 – Public Outreach

CEI shall prepare template for door hangers and letter to affected parties in the project limits and will provide the staffing to distribute project information accordingly. The City will use its own resources to purchase all supplies such as paper, ink, envelopes, and postage.

II. COMPENSATION

The compensation for CEI services provided shall be billed on either a Lump Sum or hourly basis plus reimbursable expenses for each phase of work, up to the following not to exceed cost for each phase. Refer to *Fee Estimate* attachment for budget summary.

<u>CEI Services</u>	<u>Estimated Fees</u>
Phase I – Construction Administration & Inspection	\$ 118,080.00 (NTE)
Phase II – Public Outreach	\$ 5,942.00 (NTE)
TOTAL PROJECT COST	\$ 124,022.00

Task Description / Activity							
Payroll Classification	Senior Engineer	Construction	Engineer II	Senior Inspector	Admin. Support	Total	Total
	Project Engineer	Construction Manager	Public Outreach	Sr. Inspector	Clerical	Work Hours	Labor Costs
Contract - Hourly Rates	\$150.00	\$118.00	\$118.84	\$80.00	\$70.00		
PHASE 1 - CONSTRUCTION ADMINISTRATION & CEI INSPECTION SERVICES	80.00	200.00	0.00	961.00	80.00	1321.00	
PHASE 2 - PUBLIC OUTREACH	0.00	0.00	50.00	0.00	0.00	50.00	
Total Workhours	80.00	200.00	50.00	961.00	80.00	1371.00	
Sub-Total Dollars	\$12,000	\$23,600	\$5,942	\$76,880	\$5,600		\$124,022.00
Consultant							\$124,022.00
Total Dollars*							\$124,022.00
*Hours of work are esimated and may not represent the actual hours required to complete the project							