



PROPOSAL STATEMENT OF WORK

PORT AND MARINE SERVICES

KEY WEST BIGHT SEAWALL REPAIRS/REPLACEMENT

FINAL ENGINEERING

PHASES II & III – TURTLE KRAALS, CONCH REPUBLIC & SCHOONER WHARF

Key West, FL

This proposal has been prepared in accordance with executed General Environmental Engineering Services Agreement between the City of Key West and Tetra Tech, Inc. dated January 13, 2015. The work described herein will be performed on a Time & Expense basis in accordance with the fee schedule established in this agreement. Fees shall be not-to-exceed unless approved in writing by the City of Key West.

Prepared by: TETRA TECH, Inc.
August 24, 2018



759 South Federal Highway, Suite 314 Stuart, FL 34994
Tel 772.781.3400 Fax 772.781.3411 www.tetrattech.com



PROPOSAL / STATEMENT OF WORK

Tetra Tech will work with the City of Key West Port and Marine Services (City) by providing a series of Professional Services in support of the proposed repairs and replacement of portions of the Key West Bight seawall.

The project's proposed construction approach will be as follows:

1. Repair the length of Phase 2, Turtle Kraals (depicted in pink below) with a system of concrete riprap bags to fill scoured areas as depicted in the permit drawings previously submitted to regulatory agencies (approximately 300 FT)
2. Repair of the Schooner Wharf half of Phase 3 (depicted in green below). Localized repairs for defects as identified in the seawall assessment provided by Tetra Tech (approximately 450 FT)
3. Replacement of the Conch Republic half of Phase 3 (depicted in blue below) with a new cantilever steel sheetpile seawall and CIP concrete cap system (approximately 350 FT)



Insert 1: Limits and Approach of Proposed Construction

Tetra Tech proposes to furnish Final Engineering, Water & Sewer Utility Engineering & Electrical Engineering services as further outlined below.

Task 32.1 – Final Engineering

Tetra Tech will develop 90% engineering drawings and technical specifications for the proposed construction work. These documents will be based upon the 60% permitting drawings previously produced within the project limits. Tetra Tech will provide the updated 90% drawings and technical specifications to the City and regulatory agencies for review and comment.

Pending the outcome of regulatory reviews and up to two (2) rounds of revisions required by the regulators or City, Tetra Tech will further refine the drawings and produce 100% design drawings and technical specifications to support bidding.



Tetra Tech assumes that the City will be responsible for producing all “front-end” documents (advertisement, payment and performance bonds, liquidated damages, etc.) for inclusion into the bid package. Tetra Tech will prepare the bid schedule for incorporation into the front-end documents.

(32.1) Final Engineering Subtotal: \$ 42,698

Task 32.2 – Water & Sewer Utility Engineering

This project will require the temporary interruption of water & sewer utility services to adjacent docks in order to install the seawall. These utilities include, but may not be limited to sewer pumpouts, water, and electrical services. Tetra Tech will rely on field evidence, City-provided CAD files, as-builts, record photos and other documentation to identify the location of water and sewer services and provide penetration details and notes for the replacement of these services to facilitate the seawall installation. Water services will be tied back to the nearest valve. Where possible, the utility replacement work will be limited to within approximately 10 feet of the seawall. Sewer service will be kept on the waterward side of the seawall to afford appropriate separation. The plans will identify the existence of utilities and the need for the contractor to maintain them during construction or suspend them from hangers where hangers have been damaged. The contractor will be made responsible for obtaining any utility permits.

(32.2) Water & Sewer Engineering Subtotal: \$ 12,192

Task 32.3 – Electrical Engineering

Tetra Tech’s subconsultant, Smith Engineering Consultants, Inc. (SEC), will provide the following Electrical Engineering scope of services:

Design Phase:

1. Initial site visit and review of project drawings.
2. Electrical design for the relocation/replacement of electrical systems in and around the proposed sea wall modifications within the vicinity of the Conch Republic Restaurant. This design includes the temporary relocation of existing light poles and dock power pedestals, three (3) conduit penetrations through the sea wall, and the re-routing of conduits and wiring to the existing distribution panel.
3. Submit 90% and final plans and specifications. Respond to comments and revise the 90% submittal as required.

SEC will prepare contract documents suitable for bidding, permit, and construction, including plans and specifications.

Construction Phase:

1. Review electrical equipment shop drawings
2. Respond to contractor requests for information (RFI’s) and review change order requests.
3. Perform a final inspection and prepare a punch list.
4. Prepare record drawings based upon contractor “as-built” drawings

A copy of SEC’s proposal may be found attached to this proposal.

(32.3) Electrical Engineering Subtotal: \$ 12,260



City of Key West Port & Marine Services, Key West Bight – Phases II & III
Turtle Kraals, Conch Republic & Schooner Wharf Seawall - Final Eng. Services

PROJECT ASSUMPTIONS

1. The City will be responsible for producing front-end documents for inclusion into the bid package.
2. The Contractor will be responsible for obtaining all necessary building & utility permits.
3. No modifications to any Submerged Lands Leases resulting from the project will be required.
4. The project does not include repairs or replacement of docks, except to facilitate the installation of the seawall.
5. Any site visits requested by the City beyond those detailed above will be billed on an hourly basis.
6. Efforts related to re-design or value engineering shall be made through a separate authorization.

| Task | Description | Amount |
|--------------|-----------------------------------|------------------|
| 32.1 | Final Engineering | \$ 42,698 |
| 32.2 | Water & Sewer Utility Engineering | \$ 12,192 |
| 32.3 | Electrical Engineering | \$ 12,260 |
| TOTAL | | \$ 67,150 |



City of Key West Port & Marine Services, Key West Bight – Phases II & III
Turtle Kraals, Conch Republic & Schooner Wharf Seawall - Final Eng. Services

| CITY OF KEY WEST | | | TASK 31.1 | | TASK 31.2 | | TASK 31.3 | | TOTAL | |
|---|-------------------------------|--------------|--|-----------------|--------------------------------------|-----------------|---------------------------|-----------------|--------------|-----------------|
| TURTLE KRAALS/CONCH TO SCHOONER | | | FINAL ENGINEERING (PLANS AND SPECS) | | WATER & SEWER UTILITY ENGINEERING | | ELECTRICAL ENGINEERING | | | |
| NAME | TITLE | UNIT RATE | QTY | PRICE | QTY | PRICE | QTY | PRICE | QTY | PRICE |
| TETRA TECH STAFF | | | | | | | | | | |
| S. Stotler | Technical Professional II | \$ 123.00 | 4.0 | \$492 | | | | | 4.0 | \$492 |
| R. Garland | Technical Professional I | \$ 102.00 | 12.0 | \$1,224 | | | | | 12.0 | \$1,224 |
| S. McGahee | Sr. Project Manager | \$ 205.00 | 8.0 | \$1,640 | | | | | 8.0 | \$1,640 |
| F. Martinez | Technical Professional I | \$ 102.00 | 120.0 | \$12,240 | 40.0 | \$4,080 | | | 160.0 | \$16,320 |
| A. McDonald | Sr Technical Professional III | \$ 191.00 | | | | | | | - | |
| D. Frodsham | Sr Technical Professional II | \$ 169.00 | 148.0 | \$25,012 | 48.0 | \$8,112 | 8.0 | \$1,352 | 204.0 | \$34,476 |
| M. Mendoza | Technical Professional I | \$ 102.00 | | | | | | | - | |
| P. Zuloaga | Sr Technical Professional II | \$ 169.00 | | | | | | | - | |
| L. Canty | Sr Technical Professional I | \$ 134.00 | | | | | | | - | |
| C. Warren | Technical Professional I | \$ 102.00 | | | | | 4.0 | \$408 | 4.0 | \$408 |
| TOTAL LABOR COST | | | 292.0 | \$40,608 | 88.0 | \$12,192 | 12.0 | \$1,760 | 392.0 | \$54,560 |
| EXTERNAL SUBCONTRACTOR | | | | | | | | | | |
| Smith Engineering Consultants | | \$ 10,500.00 | | | | | 1.0 | \$10,500 | 1.0 | \$10,500 |
| TOTAL EXTERNAL SUBCONTRACTOR | | | | | | | | \$10,500 | | \$10,500 |
| TRAVEL | | | | | | | | | | |
| R/T Airfare | | \$ 500.00 | | | | | | | - | |
| Mileage | | \$ 0.545 | | | | | | | - | |
| Rental Car w/Fuel | | \$ 85.00 | 4.0 | \$340 | | | | | 4.0 | \$340 |
| Misc. Travel Costs (gas, parking, tolls) | | \$ 50.00 | 2.0 | \$100 | | | | | 2.0 | \$100 |
| Lodging | | \$ 294.00 | 4.0 | \$1,176 | | | | | 4.0 | \$1,176 |
| Per Diem | | \$ 69.00 | 4.0 | \$276 | | | | | 4.0 | \$276 |
| TOTAL TRAVEL COSTS | | | | \$1,892 | | | | | | \$1,892 |
| OTHER DIRECT COSTS / RENTAL EQUIPMENT/LABORATORY | | | | | | | | | | |
| Shipping | | \$ 10.00 | 4.0 | \$40 | | | | | 4.0 | \$40 |
| Reproduction - B&W | | \$ 0.08 | 200.0 | \$16 | | | | | 200.0 | \$16 |
| Reproduction - Color | | \$ 0.42 | 100.0 | \$42 | | | | | 100.0 | \$42 |
| Misc. Equip & Supplies | | \$ 100.00 | 1.0 | \$100 | | | | | 1.0 | \$100 |
| TOTAL OTHER DIRECT COSTS | | | | \$198 | | | | | | \$198 |
| TETRA TECH OWNED EQUIPMENT | | | | | | | | | | |
| Dive Boat | | \$ 114.00 | | | | | | | - | |
| Tetra Tech Owned Equipment | | \$ 100.00 | | | | | | | - | |
| TOTAL TT EQUIPMENT | | | | | | | | | | |
| GRAND TOTAL | | | | \$42,698 | | \$12,192 | | \$12,260 | | \$67,150 |

