

# PROPOSAL STATEMENT OF WORK

# KEY WEST BIGHT FERRY TERMINAL REVITALIZATION AND SHORELINE STABILIZATION/HARBORWALK EXTENSION Tasks 2 – 11 – DESIGN THROUGH PERMITTING

Key West, FL

This proposal has been prepared in accordance with Request for Qualifications #23-002. The work described herein will be performed on a Lump Sum basis by task 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. This proposal is valid for a period of 90 days from the date on this page.

Prepared by: TETRA TECH, Inc. February 7<sup>th</sup>, 2024





#### **PROPOSAL / STATEMENT OF WORK**

Tetra Tech, along with our subconsultants (listed below), are pleased to submit this Task Order proposal for the Key West Bight Ferry Terminal Revitalization and Shoreline Stabilization/Harborwalk Extension project as outlined in RFQ #23-002.

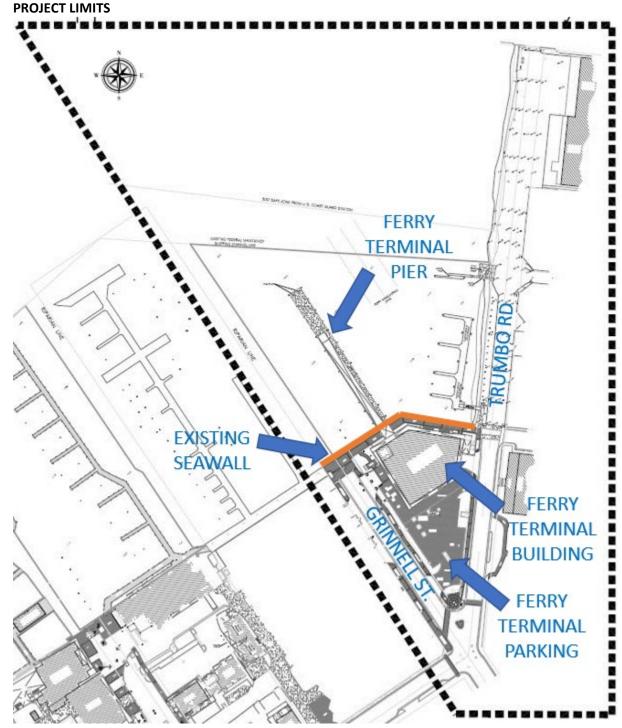
| TEAM MEMBER                                  | SCOPE (Task No.)                                      |  |
|--|---|--|
| Tetra Tech                                   | Project Management (2)                                |  |
|  | Civil Engineering (6)                                 |  |
|  | Environmental Permitting (7)                          |  |
|  | Fuel System Engineering & Permitting (10)             |  |
| Florida Keys Land Surveying (FKLS)           | Topographic & Bathymetric Surveying (3)               |  |
| Ardaman & Associates, Inc. (Ardaman)         | Geotechnical Engineering (4)                          |  |
| William P. Horn Architects (Horn)            | Architectural & Structural for Architecture (5.1-5.2) |  |
| Landwise Design Inc. (LWD)                   | Landscape Architecture (5.3)                          |  |
| Trepanier & Associates, Inc. (Trepanier)     | Planning (5.4)  |  |
| Smith Engineering Consultants (SEC)          | Electrical Engineering (8)                            |  |
| Minuteman Security & Life Safety (Minuteman) | Security System Design (9)                            |  |

#### **PROJECT AERIAL**



Insert 1: Existing Ferry Terminal Building, Pier, and Portion of Trumbo Road





Insert 2: Project Survey Limits

#### **Project Understanding**

Tetra Tech understands that the City of Key West wishes to revitalize the Key West Ferry Terminal Building, parking area, landscaping, seawall, and extend the Key West harborwalk along Trumbo Road with lighting and security features.



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## City of Key West – KW Bight Ferry Terminal Revitalization and Shoreline Stabilization/Harborwalk Extension

Tasks 2-10 – Design Through Permitting

This proposal seeks to provide design and permitting services sufficient to obtain entitlements through the City's Major Site Conditional Use Approval process as well as State and Federal environmental permitting. Our team proposes to support the project through the following Scope of Services:

#### Task 2 - Project Management

Tetra Tech will provide Project Management general oversight of the Key West Bight Ferry Terminal Revitalization and Shoreline Stabilization/Harborwalk Extension project, including the following:

- 1. Coordination of various supporting documents and deliverables among the team members
- 2. Management of subconsultants
- 3. Adherence to scope, schedule, budget, and invoicing requirements.
- 4. Providing routine communication with the City of Key West on progress and timelines for deliverables
- 5. Physical attendance at three meetings (DRC, Planning Commission, and City Commission meetings.)
- 6. Virtual attendance at up to ten (10) meeting with City Staff.

| (2) Project Management: | \$ 46,777 |
|-------------------------|-----------|
|-------------------------|-----------|

#### Task 3 – Topographic & Bathymetric Surveying

Tetra Tech will work with Florida Keys Land Surveying (FKLS) for topographic & bathymetric surveying on the project. FKLS will provide/delineate the following:

- 1. Delineate the site boundary including the adjacent R/W's
- 2. Existing signage locations
- 3. Fences and gate locations in fences
- 4. Boat Davits, docks, lift locations
- 5. Parking lot, parking stalls, curbs, existing above ground visible utilities (Utility poles, water meters/valves, BFPs, dumpster locations, etc.), roads, cross-walks
- 6. Elevation of the sag in the overhead wires along Trumbo Rd.
- 7. Spot elevations at the Ferry Terminal Building and Parking lot
- 8. Drainage structures (i.e.- all catch basins, top & bottom of curbs, signage...)
- 9. Contour and/or spot elevations along roadways at 25' intervals including centerline, EOP, shoulder, swales, R/W, etc...
- 10. Locate all trees on site and on adjacent properties / R/W's within 10'
- 11. Locate all shrub masses, volunteer vegetation 1" or greater
- 12. Locate and identify all mangrove fringe. Including wetland / mangrove edge as flagged by biologist (Coordinate with Karen DeMaria)
- 13. All trees and shrub masses and mangrove fringes to be identified in the field, by Karen DeMaria, prior to the field work commencing
- 14. Provide FEMA flood lines and/or flood information
- 15. Provide Ferry Terminal Building Finish Floor Elevation & bottom of the lowest horizontal structural member elevation
- 16. Drainage Rims, inverts, pipe material & diameter (where structures are able to be opened and measured without the use of heavy equipment.
- 17. Existing visible above ground water and sewer utilities including those running along seawall
- 18. FDEP MHW elevation along Trumbo Road and along Ferry Terminal Seawall
- 19. All penetrations through seawall including Grinnell St. outfall, abandoned (plugged) and existing.





Tasks 2-10 – Design Through Permitting

- 20. Top of Bank and Toe of Slope elevations along Trumbo Road.
- 21. Top of Seawall and Toe of seawall (inclusive of Grinnell)
- 22. Locations of buried fuel line along Trumbo Road, underground fuel lines to be identified in the field prior to FKLS commencing the field work.
- 23. Transformer (east side of FT building)
- 24. Bathymetric data within the City Submerged Land Lease area
- 25. Spot elevations along Ferry Terminal Pier
- 26. Elevations of the Upper and Lower corners of bents under the pier
- 27. Concrete and Mooring pile locations
- 28. Utilities, including fuel line and those beneath pier
- 29. Light poles
- 30. Joints in Pier
- 31. All pier survey work is isolated to the "Old Section" of the pier.
- Horizontal coordinates will be referenced to grid north, based on the 2011 Adjustment of the North American Datum of 1983 (NAD 83/2011), of the Florida State Plane Coordinate System (Transverse Mercator Projection), East Zone.
- Elevations will be in feet and based on the National Geodetic Vertical Datum of 1929 (NGVD 1929).
- Deliverables will be a 2018 AutoCAD DWG file.

(3) Topographic & Bathymetric Surveying: \$21,110

#### Task 4 – Geotechnical Engineering

Tetra Tech will be supported with Ardaman, a Tetra Tech-owned company, for Geotechnical Engineering. Ardaman understands that the project involves the extending the existing boardwalk at the ferry terminal to the north along Trumbo Road to be supported by timber piles. The purpose of Ardaman's work is to obtain general subsurface soil information to provide timber pile recommendations for the boardwalk extension.

#### 1. Borings Along Trumbo Road

Ardaman proposes to perform three (3) Standard Penetration Test (SPT) borings to a depth of 40 feet at accessible locations near the proposed boardwalk alignment. Due to the location of overhead power lines, the borings will be performed in the adjacent roadway (Trumbo Road) to allow for necessary clearances. Therefore, we assume that all permits and clearances (if needed) will be provided by the City of Key West to perform these borings in the roadway. The borings will be performed with a truck-mounted drill rig and support truck in general accordance with the procedures recommended in ASTM D-1586. Please note that there will be signs of completed work (boreholes, tire ruts, drilling fluids, soil cuttings, etc.). The groundwater table level will be measured (if encountered), and the boreholes will be collapsed/backfilled with existing material at the site upon completion of the field program. The surface of the boring will be patched with asphalt cold patch if performed through existing pavement. We do not anticipate the need for rock coring services and therefore has not been included in our proposal. We assume that the drill rig can be parked on City of Key West property during the coring phase of the project when it's not in use.

Considering the location of the roadway, Ardaman will provide only minimal traffic control measures (warning signs, cones, etc.) during the performance of our field work. If it is determined that the field exploration work cannot be safely performed without a formal Maintenance of Traffic (MOT) plan with





Tasks 2-10 - Design Through Permitting

partial and/or periodic lane closures, a change order will be necessary to utilize a third-party MOT company for those services. Third party MOT services, if necessary, will require a change order of \$7,000.

Prior to the mobilization of our drilling equipment, we will notify Sunshine State One-Call of Florida, Inc. (SSOCOF) of our planned exploration to allow affected utility companies the opportunity to mark the location of buried utility lines in the proposed exploration areas. The locating process will require a lead time of 3 to 5 business days. We cannot take responsibility for damages to private underground lines or structures and/or underground services which do not subscribe to SSOCOF; their locations should be provided by the client prior to commencement of the field work. Based upon the proposed location of the borings, Ground Penetrating Radar (GPR) has been deemed necessary to safely drill the site and therefore, the costs have been included in our proposal.

#### 2. Laboratory Testing

Gradation, moisture content, and organic content tests will be performed on select samples if deemed necessary. The number of laboratory tests will be determined upon completion of the soil borings and will depend on the nature of the encountered soils. All laboratory tests will be performed in accordance with applicable ASTM standards.

#### 3. Engineering Analysis and Report

Upon completion of our field exploration and laboratory testing program, an engineering report will be issued presenting the findings of our explorations and tests, and our recommendations for site preparation, preliminary timber pile length, and other geotechnical aspects of the project.

| (4) | Geotechnical Engineering: | \$ 29,777 |
|-----|---------------------------|-----------|
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#### Task 5 – Architecture, Landscape Architecture & Planning

The project is expected to go through the Major Conditional Use approval process. Tetra Tech will work with William P. Horn Architect, PA (Horn) for Architectural work on the project. Horn will subcontract with Landwise Design, Inc. (LWD) for Landscape Architecture and Trepanier & Associates, Inc. (Trepanier) for Planning Services.

#### **Task 5.1 Architectural:**

Work includes creating the site plan base drawing in AutoCAD from the survey, creating the building floor plans and roof plan from existing drawings, parking lot site plan design (will use previous design completed in 2021, project #2014, most recently dated 04/06/2021), building hardening (including new roofing, new doors and windows, new exterior painting, new signage and a new elevator). Work also includes assisting the team planner (Trepanier) in obtaining all approvals for the major development. Public meetings include Bight Board, DRC, HARC, Planning Board and City Commission.

Work does not include Mechanical, Electrical, and Plumbing (MEP) engineering for the existing building except any electrical work needed for the new elevator. The existing elevator shaft and pump room will remain as existing and the new elevator shall fit within existing condition.

#### Task 5.2 Structural:

Work includes providing design pressures only for the new roofing, windows and doors. The existing building structure (roof, walls, floor and foundation) will not be upgraded or revised.





Tasks 2-10 – Design Through Permitting

#### **Task 5.3 Landscape Architecture:**

Work includes site plan design, new landscaping and irrigation, preparation of the Tree Commission application and submittal. The project will utilize the site plan design for the parking lot from a previous project in 2021, project #2014, most recently dated 04/06/2021. Public meetings include in-person at two (2) Tree Commission meetings. Work does not include any new signage or wayfinding.

<u>Site Analysis:</u> The consultant shall review previous landscape construction documents, architectural and civil drawings and coordinate with Tetra Tech and the City to understand the project parameters. Review site conditions, successes and failures of existing plant material, site opportunities and constraints to develop our project approach that will inform material selections, irrigation modifications and maintenance suggestions.

**Base Plan Preparation:** William P. Horn's office shall generate a project base plan derived from the most current survey and architectural drawings to date. Landwise Design shall further the base plan preparation in AutoCAD 2018 (or more recent) for design purposes, including:

- Identify landscape areas for improvement
- Determine what existing vegetation shall remain or not based on site inspection of said materials
- Create a base file for the Team's use going forward

#### **Development Approval Documents:**

#### **DRC Submittal**

The Development Review Committee design documents shall be produced in accordance with applicable code requirements. The plans will be reviewed and coordinated with the architect (Horn) and civil engineer (Tetra Tech) team members prior to City submittal.

- DRC Review Drawings (24"x36") shall consist of the following:
  - Site Design Coordination with Horn's Office
    - Ferry Terminal Parking: Assist with material selection for new concrete pavers in the parking area. Parking layout/organization to remain as-is.
  - Tree Impact/Mitigation Plan
  - Conceptual Landscape Plan (w/Irrigation Notes)
  - Conceptual Planting Palette

#### **Initial Tree Commission Submittal**

The Initial Review Drawings shall be produced in accordance with applicable code requirements. The plans will be reviewed and coordinated with the architect and civil engineer prior to City submittal.

- Preliminary Review Drawings ("24x36") shall consist of the following:
  - Tree Impact/Mitigation Plan
  - Landscape Plan
  - Detailed Irrigation Plan with Irrigation Notes
  - o Planting Schedule and Details Plan
  - Specifications Sheet
  - Consultant shall attend Tree Commission Meeting (if required)

#### **Planning Commission Submittal**





Tasks 2-10 - Design Through Permitting

The Planning Commission design documents shall be produced in accordance with applicable code requirements and incorporate any changes requested during the Initial Tree Commission meeting. The plans will be reviewed and coordinated with the architect and civil engineer prior to City submittal.

- Planning Review Drawings (24"x36") shall consist of the following:
  - Site Design Coordination with Horn's Office
  - o Tree Impact/Mitigation Plan
  - Conceptual Landscape Plan (w/Irrigation Notes)
  - Planting Schedule and Details Plan
  - o Specifications Sheet

#### **Final Tree Commission Submittal**

After reviewing staff comments and notations from the Initial Tree Commission meeting and the Planning Commission meeting, the Final Review Drawings shall be produced incorporating the requested changes for the final Tree Commission submittal.

- Final Review Drawings (24"x36") shall consist of the following:
  - Tree Impact/Mitigation Plan
  - o Landscape Plan
  - o Irrigation Plan
  - o Planting Schedule and Details Plan
  - Specifications Sheet
  - Consultant shall attend Tree Commission Meeting (if required)

#### **City Commission Approval**

After the above items are completed, a Final Plan Set shall be produced incorporating requested changes and it shall be provided for submittal to the City Commission for approval. The submittal will be coordinated with Horn Architects and Tetra Tech.

#### Task 6.4 Planner:

Work includes meetings with City Staff, preparation of Major Development applications and documentations necessary for approvals from the City. The three (3) in-person public meetings include DRC, Planning Board and City Commission. The specific services to be provided are:

<u>Planning Phase One:</u> Gather available records, research, and review records to determine existing conditions of the site. Complete and provide the client with a document matrix containing a list of available records and links to records.

<u>Planning Phase Two:</u> Analyze available records, within the scope of the client's goal(s), to determine development potential of the site and layout the path to seek the necessary development approvals.

<u>Planning Phase Three:</u> Seek development approvals for the site and represent, or assist in the representation of, the project at all meetings listed above related to the approval process.

| (5) Architecture, Landscape Architecture & Planning: | \$ 168,856 |
|--|------------|
| (5.4) Planning Subtotal:                             | \$ 61,491  |
| (5.3) Landscape Architecture Subtotal:               | \$ 66,026  |
| (5.1 & 5.2) Architecture & Structural Subtotal:      | \$ 71,339  |





Tasks 2-10 - Design Through Permitting

#### Task 6 - Civil Engineering

Upon receipt of a survey, Tetra Tech will perform the following Civil Engineering services for the contract:

#### 1. Utility Coordination & Site Plan Coordination:

Tetra Tech will coordinate with the City Engineering Department for as-built records of utilities within the vicinity of the project. Tetra Tech will create a design ticket with Sunshine 811 and distribute the plan set to all responding utilities requesting confirmation of the presence or absence of utilities in the area. Any responding utility as-builts will be incorporated into the civil plans and distributed to team members for incorporation into the site plan. Should utilities need to be relocated, an additional authorization will be required.

#### 2. Harborwalk Extension & Shoreline Stabilization

Tetra Tech will provide a harborwalk extension from the northeast corner of the Ferry Terminal Building along the western side of Trumbo Road to approximately the entrance of the U.S. Coast Guard Sector Key West. The harborwalk will be comprised of timber pilings, bents, and stringers, stainless steel hardware, and ipe decking to provide a similar look and feel to the remainder of the Key West Harborwalk.

The pilings will be located landward of the Mean High Water (MHW) Line to limit exposure to stricter permitting requirements. The coastline will be armored with riprap and geofabric to provide protection against erosion and storm-related damage. The proposed configuration of the Harborwalk will avoid the gangway to the Trumbo Floating Docks, the mangroves to the north of the site, and will provide a pedestrian crossing at the RORO boat ramp.

The conceptual layout of the Harborwalk will be provided to the Architect, Landscape Architect, and Planner to assist with the development of the site plan for City Staff approval.

#### 3. Seawall Repairs

Upon receipt of a City-approved site plan, Tetra Tech will provide a seawall repair plan based upon the results of the Ferry Terminal Seawall Structural Assessment prepared by our office and dated October 14, 2022. The proposed repair will consist of a concrete toe-wall footer for locations where the underside of the concrete gravity wall is exposed. Epoxy repairs will be specified for locations of cracks and breaches in the seawall face. Tetra Tech will specify manatee exclusion devices for drainage outfalls with diameters between 7 inches and 7 feet, in accordance with permitting requirements. Tetra Tech will identify the location of boat davits but will direct the contractor to perform work around the boat davits.

#### 4. Site Civil Engineering

Upon receipt of a City-approved site plan, Tetra Tech will provide site civil engineering services in support of the renovation of the ferry terminal parking lot and surrounding areas performed by Landwise Design. Site civil engineering will be limited to subgrade preparation for replacement of turfblock, curbing, hardscaping, sidewalks and surficial features but will not include stormwater design or permitting. This scope will also not include relocation or replacements of existing utilities or fuel systems.

Preliminary research indicates that there is no existing stormwater permit for the Ferry Terminal building site. Therefore, the design intent will be to leave the existing drainage and utility systems in their current locations. Should stormwater management calculations or an Environmental Resource Permit be required for upland drainage facilities or the intended improvements, an additional authorization and budget will be required.







Tetra Tech will provide three sets of drawings to the client for review and comments and assumes one round of client comments for the 60% and 90% submittals.

#### **Deliverables:**

#### 60% Submittal:

The anticipated plan set for the 60% Submittal will contain:

- 1. Cover Sheet with Vicinity Map
- 2. Existing Conditions Plan
- 3. Proposed Conditions Plan
- 4. Seawall Repair Plan
- 5. Harborwalk Extension & Shoreline Stabilization Plans
- 6. Ferry Terminal Property Site Civil (Paving, Grading, and Drainage) Plans

The client will review the 60% drawings and 60% specifications and will provide comments (i.e., first round of comments) to Tetra Tech. Tetra Tech will respond to comments and incorporate the changes accordingly into the 90% drawings. A new set of drawings and specifications will be issued at 90%. A revised cost estimate (90%) will be included.

#### 90% Submittal:

The anticipated plan set for the 90% Submittal will contain:

- 1. Cover Sheet with Vicinity Map
- 2. Existing Conditions Plan
- 3. Proposed Conditions Plan
- 4. Seawall Repair Plan
- 5. Harborwalk Extension & Shoreline Stabilization Plans
- 6. Ferry Terminal Property Site Civil (Paving, Grading, and Drainage) Plans
- 7. Sections
- 8. Typical Details
- 9. Specifications
- 10. Cost Estimate

Client will review the 90% drawings and 90% specifications and will provide new comments (i.e., second round comments) to Tetra Tech. Tetra Tech will respond comments and incorporate the changes accordingly into the 100% drawings. A new set of drawings and specifications will be issue at 100%, signed and sealed by Florida Licensed Professional Engineer.

#### 100% Submittal:

The anticipated plan set for the 100% Submittal will contain:

- 1. Cover Sheet with Vicinity Map
- 2. Existing Conditions Plan
- 3. Proposed Conditions Plan
- 4. Seawall Repair Plan
- 5. Harborwalk Extension & Shoreline Stabilization Plans





Tasks 2-10 – Design Through Permitting

- 6. Ferry Terminal Property Site Civil (Paving, Grading, and Drainage) Plans
- 7. Sections
- 8. Typical Details
- 9. Specifications
- 10. Cost Estimate

<u>Note:</u> Following DRC and Planning Commission submittals, Tetra Tech will make minor plan changes to address comments prior to issuing drawings. Major comments or site plan changes on the submittal drawings may require additional services.

| (6) Civil Engineering: | \$ 92,118 |
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|------------------------|-----------|

#### **Task 7 – Environmental Permitting**

Tetra Tech will perform a benthic resource survey using a standard SCUBA team of three (3) scientific divers as required by the Florida Keys National Marine Sanctuary. Tetra Tech will coordinate with the Florida Keys National Marine Sanctuary to perform the certified resource survey for the permitting process and prepare a written report cataloging the resources and showing their position and size along the seawall from the west side of the Grinnell right-of-way to Trumbo Rd., and along the Trumbo Shoreline within the limits of the anticipated riprap shoreline stabilization. This resource survey will be presented to NOAA for comment and will ultimately be used during the permitting process with FDEP and the USACE.

This cost includes the preparation of the benthic resource survey report with mitigation plan but does not include the physical coral relocation or mitigation. Our mitigation plan will need to be reviewed by NOAA before any mitigation can be performed. It is expected that the benthic resource survey will take 2 days of field time.

Upon completion of the permitting drawings for the seawall repairs, and the harborwalk extension, Tetra Tech will prepare and submit permit applications for an Environmental Resource Permit to the Florida Department of Environmental Protection (FDEP) and an application for a General (Nationwide) or Proffered Permit to the U.S. Army Corps of Engineers (USACE). Tetra Tech will provide the USACE package to FKNMS-NOAA to expedite their portion of the USACE review. This fee includes up to a total of \$500 in permit application fees (paid by Tetra Tech) at the time of submittal.

Tetra Tech will process the permit applications through FDEP and the USACE. No coral relocation services are proposed as part of this scope of services. Should these services be required by the permitting agencies, a separate scope and budget can be prepared. We have budgeted up to \$5,000 of coral mitigation fees for this task. Should additional coral mitigation fees be required a separate scope and budget can be prepared.

Tetra Tech cannot guarantee the permits will be issued or the length of the review process. It is expected that the permit processing could take over six months to complete. This application processing task includes time for the permit processing of the applications and preparation of one (1) round of required requests for additional information (RFIs).



Tasks 2-10 – Design Through Permitting

Please note that the level of effort anticipated for environmental permitting does not anticipate that the project will require an Individual permit. Should an individual permit be required, additional funding will be requested from the City.

| (7) Environmental Permitting: \$ 97,13 | 3 |
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#### Task 8 - Electrical Engineering

Smith Engineering Consultants (SEC) will provide the following scope of Electrical Engineering services:

- 1. Initial site visit and review of project drawings.
- 2. Electrical design for the installation/replacement of the existing lighting within the parking lot and along Trumbo Road. It is expected that the City standard light poles and fixtures will be utilized for the design. The design will also include empty raceways for the installation of security cameras on the light poles. The lighting design shall be in accordance with Illuminating Engineering Society and Florida Greenbook standards, the National Electrical Code, and applicable local codes. SEC will prepare lighting calculations (photometrics) to indicate design illumination levels for permitting through the DRC process.
- 3. Submit 90% (draft) and 100% (final) plans and specifications. Respond to 90% comments and revise the 90% submittal as requested.

SEC will prepare contract documents suitable for bidding, permit, and construction, including plans and specifications. Drawings will be furnished to the project team in AutoCAD format using a base plan provided by others.

#### Task 9 – Security System Design

- 1. Minuteman Security & Life Safety will supply Signed and Sealed drawings with specifications for cameras along the new boardwalk.
- 2. Minuteman Security & Life Safety will provide up to two (2) revisions of said drawings. The drawings will be signed and sealed once final approval has been made by the City.
- 3. Drawings will be in AutoCAD.
- 4. Any meetings or coordination with the City will be virtual.

| (9) Security System Design: | \$ 13,130 |
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|                             |           |

#### Task 10 –Fuel System Engineering and Permitting

Tetra Tech will provide Professional Engineering design services for the replacement of one 20,000-gallon Underground Storage Tank (UST) and underground service piping from the tank to an onshore transition sump at the Bight Ferry Terminal.

#### 1. Site Visit

Tetra Tech will conduct a field assessment to collect photos. Photos will be captured electronically in JPEG format and properly referenced or included in the design deliverables along with an index of the photos.

#### 2. Meetings/Teleconference Support

Tetra Tech will attend and support teleconferences with the City and other stakeholders specific to the underground storage tank and service piping replacement design requirements via teleconference. The purpose of the teleconferences include, but are not limited to, design reviews, planning, project status,





Tasks 2-10 – Design Through Permitting

and the general exchange of information concerning current and future activities. It is assumed that these meeting will be held via teleconference.

#### 3. Design Services

Tetra Tech will utilize professional design practices to develop design drawings and technical specifications for others to bid as future work solicited by the City.

#### 3.1. Preliminary Design (60%)

The preliminary design (60%) submittal will include drawings, design analysis, and specifications that includes a full concept for technical disciplines applicable to the fuels-specific scope elements. Electronic PDF copies will be submitted. Progression from Preliminary Design (60%) to Prefinal Design (90%) will have only minimal impact to other disciplines. Plans and technical specifications will be redlined by the City and Tetra Tech will prepare drafts edited for the project. A detailed cost estimate will be provided.

#### 3.2. Preliminary Design (60%) Design Review Meeting

Upon receipt of Client review comments, a virtual meeting will be held with the client to discuss the comments and proposed resolutions.

#### 3.3. Prefinal Design (90%)

The prefinal design (90%) submittal will incorporate the comment resolution from the preliminary design (60%) review and contain sufficient detail to demonstrate the entire scope of the project in all technical disciplines and fully coordinated between disciplines. The submittal will be fully complete and have only minor outstanding items to be completed. Electronic PDF copies will be submitted. The submittal will contain a Basis of Design, Drawings, Specifications, and Cost Estimate.

#### 3.4. Prefinal Design (90%) Design Review Meeting

Upon receipt of Client review comments, a virtual meeting will be held with the client to discuss the comments and proposed resolutions.

#### 3.5. Final Design (100%)

The final design (100%) submittal will provide a complete and final set of documents ready for bid solicitation by the City. All previous stakeholder review comments will have been addressed, incorporating the changes and recommendations from the prefinal design (90%) review. All documents are to be signed, sealed, and dated by a Florida Professional Engineer. If approvals are pending at the time of final design (100%) submission, all outstanding approvals required will be identified. The final design (100%) submittal will include a Basis of Design, Drawings, Specifications, Submittal Register, Construction Schedule, and Cost Estimate (all files to be provided in PDF and native format).

#### 3.6. Technical Specifications

Tetra Tech will generate a technical specifications package as part of the final design (100%) that uses the UFGS appropriately edited for each aspect of the fueling design elements (Note: edits are only related to designer notes). Unless otherwise directed, shop drawings, quality control, material specifications, equipment efficiencies, equipment listing (e.g., UL, ANSI, NEMA, etc.), commissioning, testing requirements, execution, and similar requirements will not be changed unless dictated by more stringent requirements explicitly cited in the RFP.

#### 3.7. Submittal Review



Tasks 2-10 – Design Through Permitting

Submittals will be reviewed by the City. We will respond to all review comments and capture annotated comments as an appendix in the subsequent design submittal. Comments will be either accepted and incorporated into the subsequent design submittal or rebutted with justification.

#### 4. Assumptions

The following assumptions were made to prepare this cost proposal:

- 1. Fueling design work entails replacement of one 20,000-gallon UST, its attached appurtenances, and below grade service piping from the UST to an onshore transition sump within 200 LF. The UST and its fuel system to be designed does not extend beyond the seawall.
- 2. References utilized for design will include UL 58, UL 142, UL 1746, UL 2085, STI SP131, and STI F841.
- 3. Engineering deliverables (e.g., drawings, specifications, calculations) will be prepared for preliminary, prefinal, and final submissions to the Client.
- 4. Two iterative design reviews incorporating comments and changes from the COKW on the preceding preliminary and prefinal submissions will be incorporated into the subsequent revision. Comments provided from new reviewers pertaining to key design changes requiring additional design effort will not be considered after the prefinal design (90%) level.
- 5. A total of 20 drawing sheets and 15 specification sections will be required for the fueling design elements of work.
- 6. Design review meetings will be conducted remotely via teleconference.
- 7. One field team consisting of three (3) personnel will mobilize within 30 calendar days of notice to proceed (NTP) to initiate a site visit at the Bight Ferry Terminal in Key West, FL. The total trip duration is limited to three (3) days and travel will occur in 2024.
- 8. The anticipated period of performance is six (6) months from the date of award or NTP.
- 9. Tetra Tech will apply for a permit with Monroe County to remove and replace the UST.
- 10. Preparation of a closure plan and FDEP Permitting will be the responsibility of the contractor.
- 11. Any services or work elements not expressly stated herein are excluded, are considered out of scope, and subject to a bi-laterally negotiated change order or scope of services modification. Excluded are the following:
  - a. Costs for permit fees
  - b. Hydrology analysis services
  - c. Geotechnical investigation
  - d. Laboratory testing services
  - e. Value engineering
  - f. Sampling and analysis plan
  - g. Sediment and erosion control plan
  - h. Bid support and/or Designer of Record services during construction.
  - i. Soil remediation
  - j. Closure integrity evaluation
  - k. Water and/or Soil sampling

(10) Fuel System Engineering and Permitting: \$ 139,580

#### **PROJECT ASSUMPTIONS**

- 1. The anticipated period of performance is six (6) months from the date of award or NTP.
- 2. Submittals will be electronic. No paper copies will be required.







- 3. The City will be responsible for paying all submittal fees. No fees are included with this proposal.
- 4. The Tree Commission Meetings will be attended by the Landscape Architect (Landwise Design).
- 5. The DRC, Planning, and City Commission Meetings will be attended by Tetra Tech, Horn, and Trepanier.
- 6. Following DRC and Planning Commission submittals, the team will make minor plan changes to address comments prior to issuing drawings. Major comments or site plan changes on the submittal drawings may require additional services.
- 7. The City will provide front-end specifications for incorporation into the bid documents.
- 8. Cost estimates will be furnished after 90% and 100% documents.
- 9. A draft list of specifications will be supplied at the 60% (permitting) submittal. A final set of specifications will be provided at the 90% (bidding) submittal.
- 10. Site Plan
  - a. The site plan will be furnished to City Staff for approval of the project layout prior to development of permit level or construction level drawings.
  - b. After City Staff have approved the initial site plan design, any major changes to the site plan will require an additional services proposal.
  - c. There will be up to one (1) round of revisions to the site plan prior to receiving City Staff approval of the site plan.
  - d. The layout of the parking lot including, parking stalls, landscape areas and striping will remain as current.
- 11. In-Person Meeting Attendance will be as follows:
  - a. HARC
    - i. Horn
  - b. DRC, Planning Commission, City Commission Meetings:
    - i. Tetra Tech
    - ii. Horn
    - iii. Trepanier
  - c. Initial Tree Commission Meeting and Final Tree Commission Meeting:
    - i. Landwise Design
- 12. The scope and fee above are limited to the items immediately identified, and do not include bid services, construction management, or other services not expressly noted. All additional services will be furnished under a separate task.
- 13. The City will be responsible for coordinating the project with the U.S. Navy and U.S. Coast Guard.
- 14. The project will qualify for a General or Nationwide USACE permit. No Individual Permitting will be required including but not limited to Section 10, Section 408 or Section 404
- 15. The project will require a Major Conditional Use approval process from the City of Key West.
- 16. Up to one (1) round of plan revisions for each permitting agency.
- 17. No Coastal Construction Control Line (CCCL) surveying will be necessary.
- 18. Tetra Tech reserves the right to rely upon the geotechnical report listed above performed by Nutting Engineers dated March 2012 used for the Ferry Terminal Expansion project.





- 19. The City of Key West is to provide a city employee familiar with the underground utilities in the area to assist with locating underground lines (inclusive of the existing underground abandoned fuel line) that cannot be visually seen on-site for the duration of the utility survey field work (outlined in Task 3 above). No excavation will be performed by Tetra Tech or its subcontractors.
- 20. The City will assist with coordination with Ferry Terminal Schedule
- 21. Readily available access will be provided to the boring locations along Trumbo Road for drilling equipment
- 22. The proposed number of borings and their proposed depths will be adequate
- 23. Undisturbed samples and consolidation tests on fine-grained soils are not budgeted in the total cost
- 24. Tetra Tech and its subconsultants will not take responsibility for damages to underground structures and/or services that are not located by Sunshine State One-Call
- 25. Exploration or evaluation of the environmental (ecological or hazardous/toxic material related) condition of the site and subsurface is not included.
- 26. The contractor will be responsible for preparing a Closure Integrity Evaluation and submitting a Closure report for the UST.
- 27. Third party MOT services in performance of the geotechnical borings, if necessary, will require a change order of \$7,000.

#### **PROJECT EXCLUSIONS**

This proposal does not include the following services, which may be provided under separate authorization:

- Material testing or structural repairs to the ferry terminal pier
- Revisions made necessary through client-requested changes to previously approved drawings or other documents, such as alteration in budget, timeline, design, and changes not occurring in the normal sequence of the production of drawings.
- Revisions required because of unforeseen changes outside the project team's control, or changes in laws, rules or regulations that govern the project.
- Special graphics or models.
- More than one response to plan review comments from the City Staff on the 60% submittal and one round of plan review comments on the 90% submittal.
- Additional progress submittals to the City beyond 60% and 90%.
- Site plan changes following City Staff acceptance of the site plan.
- More than one (1) response to RAI to both FDEP and USACE.
- Paper submittals
- Submittal fees
- Attendance at meetings beyond those identified above
- Major changes to the site plan after City Staff approval.
- Modifications to the Ferry Terminal building other than those described above.
- Modification to the Submerged Land Lease
- Coral relocation
- Mitigation Fees beyond \$5,000





Tasks 2-10 – Design Through Permitting

- Permitting fees beyond \$500
- Project phasing
- USACE Individual Permitting, including but not limited to Section 10, Section 408 or Section 404
- Dredging or filling
- Replacement of the RORO boat ramp or adjacent wingwalls
- Work on the Trumbo Floating Docks
- Work on the Ferry Terminal Extension (performed in 2019)
- County permitting
- Concrete fascia wall repair for the seawall
- Mangrove trimming or permitting
- Utility engineering and/or utility permitting for the Ferry Terminal property
- Mechanical, Electrical, Water Supply or Fire Suppression modifications to the Ferry Terminal Pier.
- Undergrounding of aerial utilities
- Stormwater management permitting or calculations
- Remediation
- Removal & replacement of the police boat davits
- Bid support
- Services During Construction
- As-built drawings
- The design and/or coordination of signage/wayfinding elements
- Repairs to Ferry Terminal pilings

#### **FEE SUMMARY**

| Task | Description                                     | Amount     | Terms |
|------|---|------------|-------|
| 2    | Project Management                              | \$ 46,777  | LS    |
| 3    | Topographic & Bathymetric Surveying             | \$ 21,110  | LS    |
| 4    | Geotechnical Engineering                        | \$ 29,777  | LS    |
| 5    | Architecture, Landscape Architecture & Planning | \$ 168,856 | LS    |
| 6    | Civil Engineering                               | \$ 92,118  | LS    |
| 7    | <b>Environmental Permitting</b>                 | \$ 97,133  | LS    |
| 8    | Electrical Engineering                          | \$ 15,889  | LS    |
| 9    | Security System Design                          | \$ 13,130  | LS    |
| 10   | Fuel System Engineering & Permitting            | \$ 139,580 | LS    |

TOTAL \$ 624,370