
PROPOSAL FOR PROFESSIONAL SERVICES

Task Order 20-04

Engineering Design and Technical Services

Stormwater Outfalls Phase 1

FEMA Hazard Mitigation Grant Program (HMGP) DR-4337-231-R

Prepared for

City of Key West Utilities Department

February 24, 2020



1010 Kennedy Drive, Suite 202

Key West, Florida 33040

305-293-9440

BACKGROUND AND OBJECTIVES

The purpose of this scope of work is to improve drainage in Key West, Florida by installing tide valves on existing stormwater outfalls at approximately twenty-five (25) different locations. The project will help reduce tidal intrusions from storms and high tides. This will help protect structures and reduce loss of use of roads, business, and other associated response costs. The City has been awarded a Hazard Mitigation Grant (FEMA Project 4337-231-R) for Phase I of this project. The Phase I deliverables include, but are not limited to the following:

- Hydrologic and hydraulic studies.
- Construction plans and bid documents.
- Construction cost estimates.
- Color maps/photographs of the areas of ground disturbance.

This task order includes the following components pertaining to the storm water improvements including replacement of storm inlets, storm pipes, and installation of tide valves at approximately twenty-five (25) locations:

- Data Collection and Project management - Design,
- Land surveying,
- Final construction plans and specifications,
- Detailed construction cost estimate, and
- Hydrologic and hydraulic studies.

SCOPE OF WORK

TASK 1 – SITE EVALUATION, DATA COLLECTION AND SURVEY

- 1.1 Collect and review available as-built documents and drainage basin data describing the existing land use, drainage facilities, topography, utility atlas maps and utility record drawings.
- 1.2 Review the Storm Water Master Plan with City staff to identify the specific locations and limits of the proposed improvements.
- 1.3 Perform project area inspection to determine City drainage sub-basins and confirm existing physical conditions pertaining to current stormwater drainage elements, patterns and characteristics.

TASK 2 – HYDROLOGIC AND HYDRAULIC STUDIES

- 2.1 Prepare hydrologic/hydraulic evaluations identifying the losses before and after mitigation. (Protection against 5-yr tide event)

- 2.2 Demonstrate mitigation effectiveness by showing the physical locations and elevations of the structures/infrastructure.
- 2.3 Prepare color maps/photographs for historical preservation requirements and tribal consultation.

TASK 3 – PRELIMINARY PLANS

- 3.1 Prepare Preliminary Design documents consisting of final design criteria, preliminary drawings, outline specifications and written descriptions of the Project.
- 3.2 These drawings shall consist of a cover sheet, overall site plan/key map, site plans, and details. These drawings will be of presentation quality intended to reflect the final product.
- 3.3 Make available all design calculations and associated data.
- 3.4 Furnish five (5) copies of the Preliminary Design documents and present and review them with the City.
- 3.5 Upon receipt of complete written comments from all applicable CITY departments, we shall address the comments, provide the necessary revisions and prepare final drawings.

TASK 4 – FINAL PLANS

- 4.1 Prepare construction documents which shall include but not be limited to drawings and technical specifications, general and supplementary conditions, bid forms, invitations to bid, instructions to bidders, with technical criteria, descriptions and design data necessary for permitting by governmental authorities, and shall include any further adjustments in the scope or quality of the project or in the construction budget authorized by the City.
- 4.2 Use front end bid documents provided by the City including bidding forms, conditions of the contract, and form of AGREEMENT between the City and CONTRACTOR.
- 4.3 Make available all design calculations and associated Data.
- 4.4 Provide 100% complete contract documents for bidding purposes (hardcopies and electronic format).

TASK 5 – COST ESTIMATES

- 5.1 Prepare a detailed opinion of probable construction costs identifying quantities and their associated unit costs.

DELIVERABLES

1. Task 2 Hydrologic/Hydraulic studies
2. Task 3 Preliminary Plans & Specifications
3. Task 4 Final Plans & Specifications
4. Task 5 Detailed Engineer's Opinion of Construction Costs

ASSUMPTIONS

1. City will furnish all pertinent documents and site-specific data in its possession regarding the project area in a timely matter, including basin lines, topographic maps, storm sewer system maps, and related information.

COMPENSATION

The proposed total lump sum fee compensation for this scope of work is **\$461,170**. A summary of compensation per task is shown on the attached worksheet.

Task 1 – Site Evaluation, Data Collection, and Survey	\$ 53,080
Task 2 – Hydrologic/hydraulic Studies	\$ 89,310
Task 3 – Preliminary Design	\$133,090
Task 4 – Final Design	\$104,560
Task 5 – Cost Estimate	\$ 38,130
Permit Fees	\$ 8,000
Survey	<u>\$ 35,000</u>
Total	\$461,170

Mr. Greg Veliz
City Manager

Date



Allen E. Perez, P.E.
President

Date