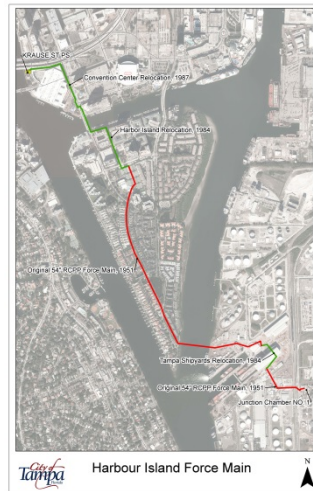


RFQ: 17 C-00038
Harbour Island Force Main Replacement
Design Criteria Package



**RFQ: 17-C-000038 DESIGN-BUILD SERVICES
FOR THE
HARBOUR ISLAND FORCE MAIN REPLACEMENT
DESIGN CRITERIA PACKAGE**



PREPARED BY:
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CITY OF TAMPA
MAY 2017

DESIGN CRITERIA:

The City of Tampa has prepared the Design Criteria Package for RFQ: 17-C-00038; Design-Build Services related to Harbour Island Force Main Replacement. The scope shall include, but not be limited to the following:

- Design services that will include:
 - Route Study that includes best alternative location and/or rehabilitation based upon public acceptance, maintenance accessibility, use of existing right-of-way, environmental impacts, permitting complexity, traffic impacts and potential for contaminated soil or groundwater.
 - Comprehensive final design services of selected route, including all geotechnical assessment.
- Easement acquisition including all surveying.
- Regulatory permitting
- Preconstruction Services with Development of Guaranteed Maximum Price for construction
- Construction of selected improvements
- Start-up and testing
- Scheduling of all logistics
- Public Relationship activities needed to maintain a positive response to the project from affected stakeholders
- Estimated Construction Budget: \$25,000,000

In addition, the following pages contain the project overview and description of requirements.

1. Purpose

1.1 This document provides the criteria for the design and rehabilitation of the Harbour Island Force Main Replacement. The intent is to list the minimum design criteria necessary for achieving this rehabilitation.

1.2 This package is not a specification or prescriptive checklist and is not intended to replace the professional judgment by a competent licensed professional engineer after coordination with the end-user and stakeholders of the City of Tampa.

1.3 Additionally, nothing in this document should preclude consideration and use of emerging technologies and commercially available products if they can be proven to result in a successful and satisfactory design the Harbour Island Force Main Replacement.

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2. Design Criteria

2.1 The design is based on providing facilities that will meet the needs of the Wastewater Department to effectively and efficiently operate the Harbour Island Force Main. These needs are based on mission and operation requirements. The design should consider existing conditions and the current and future needs of the department. It is imperative that the final designer and preparer of construction documents fully understand the operational requirements, permitting, site logistics and all related requirements to design this facility accordingly.

2.2 The Harbour Island Force Main was placed into service in 1951. The force main conveys wastewater from the Krause Street Pumping Station in Downtown Tampa to the Howard F. Curren Advanced Wastewater Treatment Plant on Hookers Point (HFC AWTP). The original force main is comprised of mostly 54-inch diameter reinforced concrete pressure pipe, non cylinder type. Several segments of the original force main have been relocated and/or replaced with new pipe. These include a segment from the Krause Street Pumping Station around the Tampa Convention Center, over the Harbour Island Bridge and terminating adjacent to the Harbour Island Tennis Club. Another segment that was relocated included approximately 765 feet around Tampa Shipyards. The remainder of the original pipe (approximately 8,910 LF) has been in continuous service since 1951. The route of the current force main is shown in Figure No. 1.

2.3 The City engaged Greeley & Hansen to prepare the “Krause Force Main Assessment and Replacement Study” dated March 2013. A copy is attached hereto. This study was only to provide a high level analysis of the condition of the Harbour Island Force Main and general considerations for the replacement of the force main. The alternative routes included in the March 2013 report are only preliminary and the route study to be performed under 17-C-0038 should contain a detailed analysis for the routing and/or rehabilitation of the force main.

2.4 Design build services shall include, but not be limited to, replacing or rehabilitating the section of force main located from the Harbour Island Tennis Club to HFC AWTP.

2.5 Wastewater flow must be maintained throughout all phases of the construction. If the construction sequencing requires installation of a temporary bypass pipeline, the pipeline must be adequately sized so that the current hydraulic capacity of the Krause St. Pumping Station is maintained.

3. Facilities Development Criteria

Conduct design services that will include the following:

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Conduct a pipeline route study and alternatives analysis to identify and evaluate alternatives routes and methods for replacing the existing pipeline as well as alternatives for rehabilitating the pipeline. The study will include hydraulic modeling, identification of permitting requirements, required easement acquisitions, geotechnical evaluation, constructability review, and preliminary cost estimates.

The City will evaluate the various alternatives and will make a final selection of the required improvements that will be used for the final design.

Provide a survey along the selected pipeline route that includes location of existing utilities, elevations, and all other features required to properly design and construct the new pipeline.

Create final plans and specifications for the selected force main which will include: Finalized Auto CAD and pdf drawings, technical specification and pricing proposals developed to a GMP document with all associated exhibits (scope, pricing, qualifications). Present final design; route, site preparation, build schedule, alignment survey, Port Authority agreements, utility agreements, permits and all required approvals from regulatory agencies and local authorities.

4. Construction Management & Oversight

The Design Build team will be responsible for construction management activities and general project oversight with consistent coordination with the City during the design and construction portions of the project. Construction management activities will include, but not be limited to:

Identification of the designated staging location(s) with respect to project need. The Design Build Firm shall prepare an aerial map with the project boundaries and staging site(s) clearly delineated. The map shall include, at a minimum, distances (from property lines) of the staging lot(s) to adjacent residential parcels, in addition to the duration of occupancy of the location. Accompanying the aerial maps shall be a plan of the respective staging site(s) showing fencing, screening, and if necessary the location of trailers, parking areas and the driveway apron(s) for access.

5. Environmental Criteria

The Design Build team will be responsible for all required environmental testing and permitting needed to complete the project. The scope of these requirements will be determined by the Design Build team based on the selected improvements and construction requirements. At a minimum it is anticipated the following tasks shall be completed:

- Tampa Port Authority – Marine Construction Permit

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- Environmental Resource Permit - Florida Department of Environmental Protection/U.S. Army Corps of Engineers/U.S. Fish and Wildlife and State Historical Resources and other agencies
- Florida Department of Environmental Protection – Construction of a Domestic Collection/Transmission System.
- General NPDES Permit – Notice of Intent
- CSX - crossing permit

7. Operations/Training

The Design Build team shall provide start-up of the new facility. The design build team will be completely responsible for any bypass systems necessary during the construction phase. The City will not take over operation of a new force main until the project is substantially complete as determined by the City.

The Design Build team shall provide AutoCAD as-builts drawings accurately depicting the as-built conditions of the new pipeline and all appurtenances. Hard copies of the as-built drawings will also be required as will be determined during the design phase.

8. Public Relations

The existing force main is located in a dense urban corridor and port. Contact with the Harbour Island neighborhood associations, retail/commercial business, and the Tampa Port Authority is necessary through the design and construction of this project. Inquiries and questions about design and construction will be handled by the Design Build Firm, after coordination of the responses with the City of Tampa.

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