

RFP 099-18
Appendix A - Technical Specifications
Engineering Services for the Bartram/US1 and Cecil Field Water Main Construction Projects

DESCRIPTION OF SCOPE OF SERVICES

GENERAL

Consultant agrees to provide Engineering Services for the above project as outlined herein.

SCOPE OF SERVICES

The Scope of Work to be performed under this task consists of pipeline route study, final detailed design, permitting (if required), bid phase assistance, construction management at risk (CMAR) coordination and engineering support services during construction.

Work performed under this scope of services shall be paid for under a lump sum basis with progress payments payable in proportion to the percentage of work completed.

TASK PLAN

A. General tasks that are to be included in this project includes the following:

- 101-44: 103rd St (Cecil Field) WM Replacement
 - Routing alignment analysis
 - Development of the design for replacement of approximately 11,050 LF of 24-inch PVC pipe installed in 2002. Exhibit 1.
 - Services during Construction
 - CMAR coordination services
- 101-33: Bartram – US1 – Old St Augustine Rd to US1 – WM
 - Proposed route alignment analysis
 - Development of the design for connecting on the north end to both the 24" and 20" water mains on the north side of the US1 (Phillips Highway) right-of-way to the Bartram Re-pump station and 200 lf of 16" water main bypass at the St. Johns Forest Water Treatment Plant (WTP). Figures 1, 2, 3
 - Suggested methods of construction
 - Analysis of special crossings
 - Real state acquisition requirements
 - Survey requirements
 - Geotechnical and Environmental requirements
 - Permitting requirements
 - Services during Construction
 - CMAR coordination services

B. Design Kickoff Meeting

Attend the design kickoff meeting at the date and time established by JEA. Prepare meeting minutes and submit to JEA.

W-57

**103rd St:
Aviation to Cecil Commerce Center**

Exhibit 1



JEA
ARCADIS
Large Diameter Pipe
Evaluation And
Replacement Program

Pipes In Project:

Existing Route

Other Pipes

Water Mains > 16"

Water Mains < 16"

Other:

WTP



Figure 1 – Overall Water Main Route

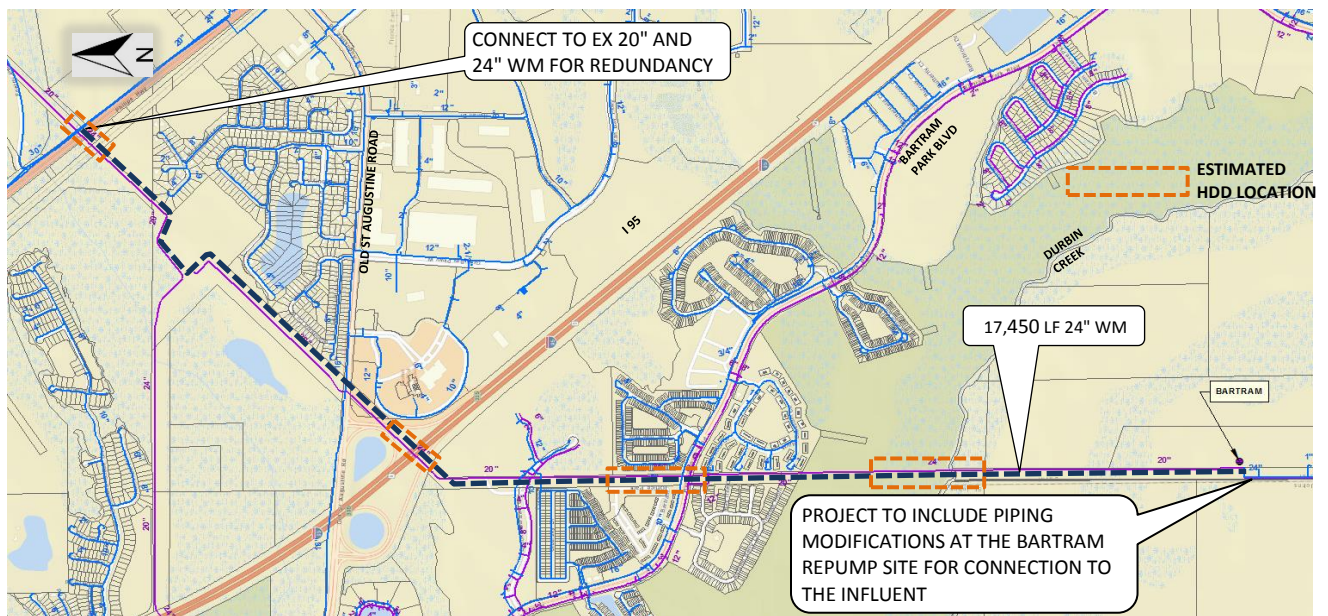


Figure 2 – St. Johns Forest Water Main Bypass Location

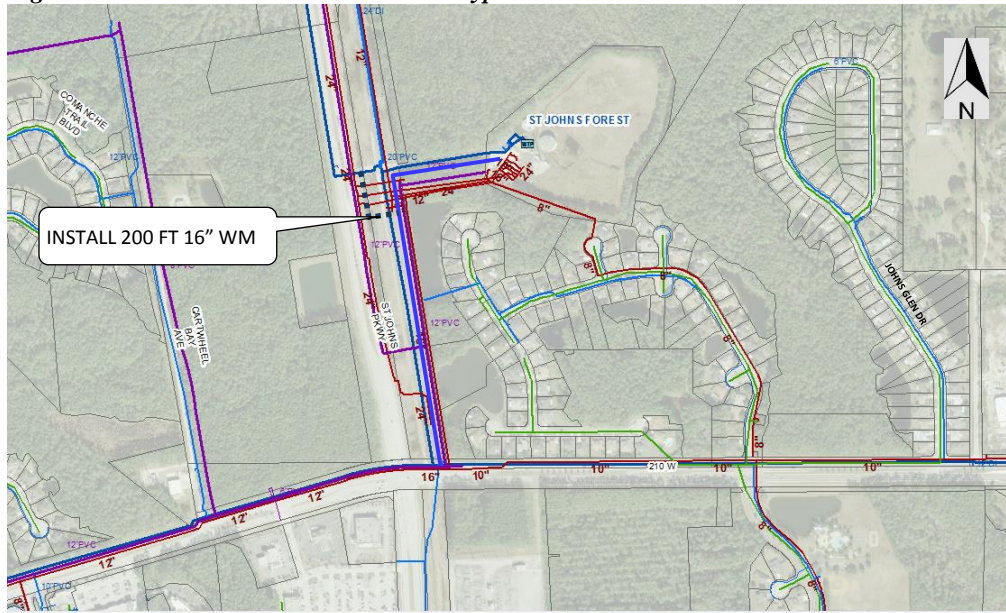
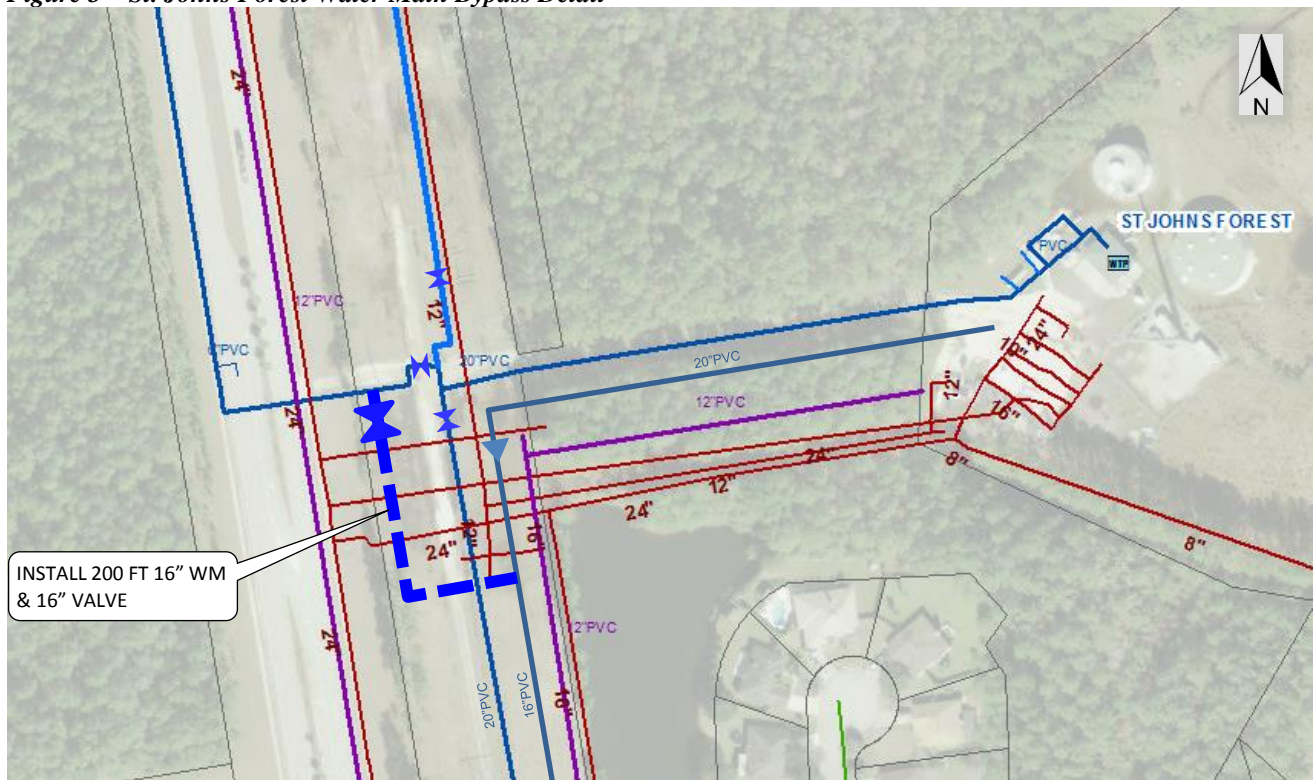


Figure 3 – St. Johns Forest Water Main Bypass Detail



C. Design Criteria

Comply with JEA Water & Sewer Standard Specifications; JEA Water, Sewer and Reclaimed Water Design Guidelines requirements; JEA Rules and Regulations for Water, Sewer & Reclaimed Water Services for water pipeline design and other applicable standards.

D. Opinion of Costs

Consultant will prepare opinions of construction cost at all stages of deliverables in accordance with the Association for the Advancement of Cost Engineering International, Inc. (AACE) for the purpose of assisting JEA in preparing budget funding request, evaluating design options. Expected accuracy will be as follows: Class 3 estimate for 30% design deliverable and System study.

E. Permitting Assistance

Assist JEA in filing and obtaining all the necessary permits from local and state agencies to include but not limited to:

- City of Jacksonville (10 set review and Right-of-Way permit)
- Florida Department of Environmental Protection
- FDOT
- St. Johns River Water Management District
- Army Corps of Engineers.
- FWC

Assistance will include:

- Pre-meetings with permit authorities as needed to insure necessary approvals.
- Preparation of applications, exhibits, drawings, and specifications as needed for execution and submittal.
- Furnishing additional information about the project design as required for permit approval.
- Submittal of applications to the permitting authorities.
- JEA will provide payment for necessary permits.

F. Design Contract Documents

1. Prepare detailed drawings, specifications, and Bid Form for the proposed construction work and for materials and equipment required. The documents shall be prepared for selection of private construction contractors on a competitive bid price basis. The documents shall be prepared as one contract.
2. Update the opinion of probable construction cost for the proposed work covered by the contract documents and provide with final construction contract documents.
3. Review the contract documents for completeness and constructability.
4. Provide Asset Management Documentation for inclusion in bid specifications.
5. Provide six sets of contract documents to JEA for review at 30 percent, 60 percent, 90 percent and final construction drawings.
6. Following the review of the completed contract documents meet with JEA to discuss them and to resolve any modifications and questions. This item provides for four meetings with JEA personnel to discuss review comments.
7. Bidding Documents to be provided to JEA include drawings, bid form, specifications, and text for inclusion into the JEA Special Conditions, if needed.
8. Provide one CD with electronic drawing files and six copies of the final construction drawings to JEA. If not directed otherwise by JEA, provide electronic files of specifications in PDF format and drawings in PDF and AutoCAD formats.
9. CMAR associated submittals and documents.

G. Bid Phase Services

1. If requested by JEA, attend the pre-bid conference at the date and time established by JEA.
2. Interpret construction contract documents in regard to Contractor questions. Support JEA with drawings and/or specification updates for addenda issuance. JEA will coordinate and issue all addenda.
3. JEA will conduct the bid opening. Attendance is not required by designer at the bid opening.
4. Provide Conformed drawings and specifications. JEA will be responsible for the coordination and distribution of conformed copies of the construction contract documents.
5. CMAR qualification, performance criteria and bid package.

H. Construction Services

1. Attend and participate in the pre-construction meeting to answer technical questions.
2. Review and approve shop drawings. The contract will include the time for two (2) reviews per drawing, if the second review cannot be approved, the submitting contractor will fund the additional reviews.
3. Attend monthly status meetings/site visits.
4. Respond to Contractor RFIs. Include two (2) responses per month. Responses that require any corrections to plans or specifications are not to be counted against this total.
5. Review Asset Management Information submittals and completed work submitted as part of the monthly contractors invoice to ensure compliance with plans and specifications.
6. Preparation of FDEP certification, if required
7. Substantial and final completion
8. Review and approve final O&M manuals for the equipment.
9. Prepare and submit Record Drawings.

I. DELIVERABLES

Consultant shall provide the following deliverables to include but not limited to:

30, 60 and 90% Design Documents

- 30, 60, and 90% engineering drawings
- 30, 60, and 90% written specifications if needed
- Final design calculations
- Applicable permits
- Asset management documentation

100% Design Document

- Final engineering drawings
- Final written specifications
- Final QC performed
- Final survey
- Geotechnical Report

Construction Documents

- Conformed engineering drawings
- Conformed written specifications

J. INFORMATION BY JEA

The following shall be provided by JEA for this RFP.

- Project Definition

K. SCHEDULE

The assessment/design/permitting phase services shall not exceed 10 months unless approved otherwise by JEA.