



KING ENGINEERING ASSOCIATES, INC.

SUPPLEMENTAL WORK ORDER for the CITY OF CLEARWATER

Date:	August 27, 2018
Engineer Project Number:	2110-210-001
City Project Number:	09-0024-UT
City Plan Set Number:	2014032

1. PROJECT TITLE:

Marshall Street Water Reclamation Facility Digester Demolition Design and Permitting

2. SCOPE OF SERVICES:

In 2013, the City decided to demolish the existing digester at the Marshall Street Water Reclamation Facility (WRF) to make space available for future equalization basin facilities. On November 8, 2013, the City issued a work order to King Engineering Associates, Inc. (ENGINEER) to provide design, permitting and construction phase services for this work.

Upon initiating the work, existing conditions were discovered that eventually led to the need for a more complicated demolition process than had been anticipated. These conditions included a need to remove a tree growing in the digester without damaging the cover; the possibility that a damaged cover, which had been submerged for over 10 years, could fall into the digester and, in turn, damage existing piping and cause a subsequent release of potentially toxic material to the environment; an inability to sample the submerged digester cover for potentially hazardous materials; and, incomplete record drawings causing a requirement for special foundation (pile) demolition. All of these conditions led to the development of a complicated sequence of construction for properly removing and disposing of liquids and solids in the digester and for its demolition and disposal in a lawful manner.

In addition, the City requested the ENGINEER make revisions to previously approved methods for disposal and recycling of the digester liquids, including the use of the anoxic tanks and

development of alternate criteria allowing the recycling of water to the treatment plant and/or off-site hauling. The cost of performing this work depleted the contingency budget (Tasks 8).

Lastly, during this process, the City experienced a failure of its influent pump station at the Marshall St WRF that resulted in significant delays to the project. These delays, in turn, were accompanied by personnel turnover at the City that delayed the project even further.

In light of the foregoing, the City has requested additional engineering and observation assistance during construction due to the more complicated demolition process. Also, because of the 5-year delay in the project, the City recognizes the need for additional project management services through the construction period, the need to modify the cover sheet to meet updated City standards, and an adjustment to account for changes in billing rates. Lastly, it is necessary to replenish the contingency budget.

This Work Order authorizes ENGINEER to provide the services discussed above as more specifically set forth below.

I. PRE-DESIGN PHASE

Task 9 - Project Coordination During Construction

- Coordinate the activities of King's staff and subconsultants with those of the City and administer communications among the project team members and with the City's staff.
- Maintain and update monthly project schedules and status reports.
- A health and safety plan will be prepared, submitted, and approved by the City Project Manager prior to mobilizing to the site.

II. FINAL DESIGN PHASE - N/A

III. BIDDING PHASE - N/A

IV. CONSTRUCTION PHASE

Task 11.1 - Additional Construction Site Assistance

ENGINEER'S engineer of record and/or project engineers will provide additional construction-related services, including subconsultant electrical engineering services, and make additional visits to the site during critical phases of construction, up to a total of 32 hours, to assist the City and the contractor comply with contract requirements and resolve potential differing site conditions.

Task 11.2 – Additional Construction Observation

ENGINEER will provide up to 120 hours of additional on-site observation services, and submit daily observation reports on a weekly basis.

Task 11.3 – Project Dossier

At the conclusion of the project, ENGINEER will combine construction documents, including correspondence, meeting minutes, contract documents, change orders, field orders, RFIs, work change directives, addenda, additional drawings issued subsequent to the execution of the contract, progress reports, shop drawings, progress submittals, regulatory correspondence, and other project-related documents into a project dossier and submit to the City for review and comment. The project dossier will be submitted electronically on CD/DVDROM. We have budgeted for up to one round of City review and comment.

V. CONTINGENCY ALLOWANCE

Task 12 – Contingency Services

ENGINEER will provide other additional engineering services, not included in the original Work Order or this Supplemental Work Order, as requested by the City.

3. PROJECT GOALS:

Project deliverables will be submitted in accordance with Attachment “A” and will include the following:

1. Copies of the drawings for bidding purposes: Two (2) signed and sealed hardcopies, digital pdf, AutoCAD.
2. Addenda (up to 2).
3. Recommendation of contract award.
4. Up to eight (8) signed and sealed sets of plans for Planning/building permit.

4. BUDGET:

See Attachment “B”.

This price includes all labor and expenses anticipated to be incurred by King Engineering Associates, Inc. for the completion on a Cost Times Multiplier Basis, for a fee not to exceed Fifty Two Thousand One Hundred Ninety Two Dollars and Zero Cents (\$52,192.00).

There are no permit application fees associated with this project.

5. SCHEDULE:

The project is to be completed in accordance with the City’s bidding and construction schedule.

6. STAFF ASSIGNMENT:

ENGINEER’S Staff

Principal:

Christopher F. Kuzler, P.E.

Project Manager:	Thomas A. Traina, P.E.
Project Engineers:	Jeff Elick, P.E.
Site Observation Representatives:	Orlando Serrano, Brett Myers
Designers:	Mark Gladbach
Clerical:	Paula Eldon

City's Staff:

Duy Nguyen	Project Manager
Jason Jennings	Public Utilities Liaison
Ryan Alexander	Public Utilities Site Representative (Marshall St. WRF Chief Operator)
Jeremy J. Brown, PE	Utilities Engineering Manager
Richard G. Gardner, PE	Public Utilities Assistant Director

7. CORRESPONDENCE/REPORTING/COMMUNICATION PROCEDURES:

ENGINEER'S project correspondence shall be directed to Thomas A. Traina, PE.

All City project correspondence shall be directed to the Project Manager, with copies to the Utilities Engineering Manager and Public Utilities Assistant Director.

ENGINEER shall provide a minimum of forty-eight (48) hours' notice prior to conducting fieldwork/site visits. ENGINEER shall provide a minimum of seven (7) days notification for site visits requiring the assistance of City Operations and Maintenance personnel.

ENGINEER acknowledges that all City directives shall be provided by the City Project Manager.

In addition to the original copies delivered as stated in the scope of work, all project deliverables will be submitted in electronic format on CD or other City approved device prior to approval of final invoice.

8. INVOICING/FUNDING PROCEDURES:

For work performed, invoices shall be submitted monthly to:

City of Clearwater
Engineering Department
Attention: Veronica Josef, Senior Staff Assistant
PO Box 4748
Clearwater, Florida 33758-4748

Contingency services will be billed as incurred only after written authorization is provided by the City to proceed with those services.

City Invoicing Code: 3277327-561300-96664

9. INVOICING PROCEDURES

At a minimum, in addition to the invoice amount(s) the following information shall be provided on all invoices submitted on the Work Order:

- A. Purchase Order Number, Project Number and Contract Amount.
- B. The time period (begin and end date) covered by the invoice.
- C. A short narrative summary of activities completed in the time period
- D. Contract billing method – Lump Sum or Cost Times Multiplier
- E. If Lump Sum, the percent completion, amount due, previous amount earned and total earned to date for all tasks (direct costs, if any, shall be included in lump sum amount).
- F. If Cost Times Multiplier, hours, hourly rates, names of individuals being billed, amount due, previous amount earned, total earned to date for each task and other direct costs (receipts will be required for any single item with a cost of \$50 or greater or cumulative monthly expenses greater than \$100).
- G. If the Work Order is funded by multiple funding codes, an itemization of tasks and invoice amounts by funding code.

10. SPECIAL CONSIDERATIONS:

The ENGINEER named above is required to comply with Section 119.0701, Florida Statutes (2013) where applicable.

PREPARED BY:

APPROVED BY:

Christopher F. Kuzler, P.E.
Executive Vice President
King Engineering Associates, Inc.

D. Scott Rice, P.E.
City Engineer
City of Clearwater

Date

Date



CITY OF CLEARWATER ENGINEERING DEPARTMENT

WORK ORDER INITIATION FORM CITY DELIVERABLES

1. **FORMAT**

The design plans shall be compiled utilizing the following methods:

1. City of Clearwater CAD standards.
2. Datum: Horizontal and Vertical datum shall be referenced to North American Vertical Datum of 1988 (vertical) and North American Datum of 1983/90 (horizontal). The unit of measurement shall be the United States Foot. Any deviation from this datum will not be accepted unless reviewed by City of Clearwater Engineering/Geographic Technology Division.

2. **DELIVERABLES**

The design plans shall be produced on bond material, 24" x 36" at a scale of 1" = 20' unless approved otherwise. Upon completion the ENGINEER shall deliver all drawing files in digital format with all project data in Autodesk Civil 3D file format. If not available Land Desktop files are still acceptable, however the City or Clearwater is currently phasing out Land Desktop.

NOTE: If approved deviation from Clearwater CAD standards are used the ENGINEER shall include all necessary information to aid in manipulating the drawings including either PCP, CTB file or pen schedule for plotting. The drawing file shall include only authorized fonts, shapes, line types or other attributes contained in the standard release of Autodesk, Inc. software. All block references and references contained within the drawing file shall be included. Please address any questions regarding format to Mr. Tom Mahony, at (727) 562 4762 or email address Tom.Mahony@myClearwater.com.

All electronic files must be delivered upon completion of project or with 100% plan submittal to City of Clearwater.

Marshall Street Water Reclamation Facility Digester Demolition - Additional Services King Engineering Associations, Inc.

SUPPLEMENTAL WORK ORDER INITIATION FORM PROJECT BUDGET

Task	Description	Subconsultant Services	Labor	Total
I.	PRE-DESIGN PHASE			
9	Project Coordination		\$7,151	\$7,151
Total Pre-Design Phase				\$7,151
IV.	CONSTRUCTION PHASE			
11.1	Additional Construction Site Assistance	\$1,450	\$15,936	\$17,386
11.2	Additional Construction Observation		\$14,291	\$14,291
11.3	Project Dossier		\$3,364	\$3,364
Total Construction Phase				\$35,041
V.	CONTINGENCY ALLOWANCE			
12	Contingency Services		\$10,000	\$10,000
Total Contingency				\$10,000
Grand Total				\$52,192