

## TASK ORDER 4-18 SWR

### ENGINEERING DESIGN, PERMITTING, BID PHASE, and CONSTRUCTION PHASE SERVICES FOR REHABILITATION of WASTEWATER PUMP STATION C, and PUMP STATION E GENERATOR REPLACEMENT

This TASK ORDER 4-18 SWR is issued under the terms and conditions of the MASTER AGREEMENT TO FURNISH GENERAL ENGINEERING SERVICES TO THE CITY OF KEY WEST ("AGREEMENT") between the City of Key West ("CITY") and CH2M HILL Engineers, Inc. ("CONSULTANT") executed on November 03, 2017, which is incorporated herein by this reference.

A. SCOPE OF SERVICES

Specific services which the CONSULTANT agrees to furnish are summarized on the attached statement entitled TASK ORDER 4-18 SWR, "SCOPE OF SERVICES." The "Scope of Services" defines the work effort anticipated for the Task order.

This Task Order, when executed, shall be incorporated in and shall become an integral part of the November 03, 2017, Master Agreement.

B. TIME OF COMPLETION

Work under this Task order will begin immediately following acceptance and completed expeditiously subject to coordination with the City of Key West staff.

C. COMPENSATION

Compensation for the labor portions of TASK ORDER 4-18 SWR, Task A, and B will be on a lump sum fee basis as stipulated in Article 5, Paragraph 5.1.1 of the AGREEMENT. Compensation for the labor portions of Tasks C, and D and all expenses will be on a Cost Reimbursable-Per Diem basis as stipulated in Article 5, Paragraph 5.1.2 of the AGREEMENT. The estimated compensation is shown on the attached statement entitled TASK ORDER 4-18 SWR COMPENSATION.

D. ACCEPTANCE

By signature, the parties each accept the provisions of this TASK ORDER 4-18 SWR, and authorize the CONSULTANT to proceed at the direction of the CITY's representative in accordance with the "SCOPE OF SERVICES." Start date for this project will be no later than ten (10) days after execution of this authorization.

For CH2M HILL Engineers, Inc.

For CITY OF KEY WEST

By:

  
Sirpa H. Hall  
Sr. Business Vice President

4/26/2018

By:

  
Jim Scholl  
City Manager

  
Sean McCoy, P.E.

Key West Project Manager

Dated the \_\_\_\_ day of \_\_\_\_\_, 20\_\_

ATTEST: \_\_\_\_\_

TASK ORDER 4-18 SWR  
ENGINEERING DESIGN, PERMITTING, BID PHASE, and CONSTRUCTION PHASE SERVICES FOR  
REHABILITATION of WASTEWATER PUMP STATIONS C AND E, PUMP STATION E GENERATOR  
REPLACEMENT, AND LINER FOR INFLUENT MANHOLE AT PUMP STATION D

## SCOPE OF SERVICES

### Project Description

The City of Key West owns and operates twenty-five (25) Wastewater Area Pump Stations which are responsible for conveying wastewater flows to the Richard A. Heyman Environmental Protection Facility. In 2015, CH2M HILL was contracted to inspect these lift stations and provide a condition assessment report. This report identified pump station components which need rehabilitation or replacement, provided budget level cost estimates, and prioritized pump stations requiring rehabilitation. This report was used by the City to plan and budget for Capital Improvement Plan efforts to rehabilitate the City's wastewater pump stations.

To ensure continued service the CITY proposes to retain the CONSULTANT to provide design and bid phase services for the rehabilitation of the top ranked pump stations identified in the Preliminary Condition Report.

### Purpose

The CITY has requested the CONSULTANT provide Engineering services for the Design, Permitting, Bid Phase, and Construction Phase Services for the rehabilitation of the City's Wastewater Pump Stations "C and E", re-route the force main at Pump Station E, replace the generator and platform at Pump Station E, and repair the influent manhole to Pump Station D installing new liner.

CH2M HILL will prepare bid ready contract documents for the rehabilitation of Pump Stations "C and E", re-route the force main at Pump Station E, generator replacement at Pump Station E, and the lining of the influent manhole at Pump Station D. Once design, and permitting are completed, CH2M HILL will provide bid phase, and construction phase services as described below.

This Task Order describes the CONSULTANT's Scope of Services. Specific activities to be performed under this Task Order are bulleted below and described in the following section.

- Provide detailed preliminary and final design with submissions of 60% and 90% documents for review. Following acceptance of the 90% documents, bid ready documents will be prepared, and submitted for bidding.
- Permitting
- Bid Phase Services
- Construction Phase Services

### Scope of Services

#### Task A – Design

This task includes activities related to the design of the Wastewater Pump Station rehabilitation. This task is divided into two subtasks that would correspond to logical review milestones for the CITY.

Prior to beginning design efforts, The CONSULTANT will conduct a project Kick-off meeting with the CITY to coordinate design efforts, and set delivery schedule.

### Subtask A.1 – Preliminary Design (60%)

The CONSULTANT will perform the work necessary to develop the rehabilitation of both pump stations, new force main at Pump Station E, generator with platform replacement at Pump Station E, and the lining of the influent manhole at Pump Station D design , based on the preliminary condition report and existing pump station layout. The objective of this task is to design pump station rehabilitation and replacement components, and to communicate the design tasks to the CITY. The CONSULTANT will conduct a design review meeting with the CITY prior to the conclusion of this task.

Specific work activities in this task are identified below:

- Develop pump station rehabilitation sheets for Pump Stations C and E and the lining of the influent Manhole at Pump Station D.
- Pump Station C:
  - Replace the valves, pumps, piping supports, and guide rails in the wetwells
  - Rehabilitate the wetwell liner and electrical conduits into the wetwell.
  - Replace the site lighting.
  - Provide stainless steel pump floor plates
- Pump Station E:
  - Replace the valves, pumps, piping supports hatches, gates and pump rails in the wetwells
  - Reroute the force main as it leaves the wetwells and provide a new meter vault.
  - Replace the main control panel, main disconnect, main power feed, lighting, and temporary generator connection.
  - Replace the site fencing
  - Provide stainless steel pump floor plates.
  - Replace the RTU with a TCU
  - Replace the generator and platform. Raise the height of the new platform one foot.
- Pump Station D
  - Replace liner for influent manhole
- Develop Specification Table of Contents
- Identify any potential constructability issues.
- Prepare Class 4 budget-level cost estimate.

- 60% Design Review Meeting.

### Deliverables

- Electronic copy of Kick-off Meeting Agenda and Minutes
- Four (4) hard copies of the preliminary design, which includes preliminary drawings, design data, catalog cut sheets and 60% complete review documents, and an outline of the technical specifications (two (2) of these copies are for OMI)
- Electronic copy of 60% construction cost estimate
- Electronic copy of 60% review meeting minutes

### Subtask A.2 – Final Design (90%)

During this subtask, the CONSULTANT will complete the technical design based on the outcome of the 60% Design Review. At the end of this subtask the design documents will be considered complete and ready for bidding.

Specific work activities in this task are identified below:

- Prepare 90% contract documents, which include legal and technical specifications and drawings.
- Conduct 90% review meeting
- Incorporate review comments from CITY into the design documents,
- Based on the 90% documents prepare updated final construction cost estimate
- Based on the 90% documents prepare bid documents.
- Submit bid documents to the CITY.

### Deliverables

- Electronic copy of final construction cost estimate
- Electronic copy of 90% review meeting minutes
- Four (4) copies of 90 % review documents: 11 x 17 drawings and specifications (two (2) of these copies are for OMI)
- Four (4) copies of final bid documents, including drawings and specifications (two (2) of these copies are for OMI)
- One (1) CD of the final bid documents for upload to DemandStar

### Task B – Permitting

CONSULTANT will prepare a letter for FDEP stating the proposed improvements to Pump Stations C and E and request confirmation that a permit is not required. The CONSULTANT will submit a draft of the proposed letter to the CITY for review and comments.

## Deliverables

Electronic copy of the FDEP letter.

## Task C – Bid Phase Services

Bidding services are based on a Bid Period of 30 days. The CONSULTANT will provide the following services to the CITY to assist in the bidding process:

- Assist the CITY with placing contract documents, in PDF format, to DemandStar for bidding.
- All direct communications with bidders on matters related to the technical aspects of the design will be handled directly by the CONSULTANT.
- Coordinate and conduct one pre-bid meeting to familiarize each bidder with the scope of work and to answer any questions that may arise.
- Issue up to two (2) ADDENDA, if required.
- Bids will be received, opened, and read aloud by the CITY at the designated time and location.
- Review and evaluate bids for compliance and completeness. The CONSULTANT will prepare an award letter for the CITY recommending the successful bidder.
- After award, the CONSULTANT will distribute to the successful contractor three sets of contract documents for execution. The contractor will be directed to return the documents to the CONSULTANT for compliance review of the bidding requirements. After the CONSULTANT reviews the contract documents, these three sets of documents will be sent to the CITY for final review and signatures.
- Prepare conformed contract documents for use by CITY, CONSULTANT, and Contractor during construction. Including three (3) signed and sealed sets of documents for submission by contractor to City of Key West Building Department.

Bid services will be considered complete upon the CONSULTANT's review and forwarding of the Contractors executed documents to the CITY, and submittal of conformed documents to the CITY.

## Deliverables

- Electronic copy of Pre-bid meeting minutes
- Electronic copy of recommendation of award letter
- Three (3) copies of Contract Documents for execution
- Six (6) copies of Conformed Contract Documents (two (2) of these copies are for OMI), one (1) full size set of drawings and one (1) CD containing specifications and drawings in PDF format.
- Three (3) Signed and Sealed copies of conformed documents for contractor to submit for the anticipated City of Key West Building Permit (half size drawings).

## Task D – Construction Phase Services

The CONSULTANT will perform limited construction phase services listed in this Task Order for a construction period that is estimated to be 8 months. The CITY will be responsible for full-time resident observation.

The CONSULTANT will perform the following activities during this portion of the project.

- The CONSULTANT will coordinate and conduct one pre-construction meeting and distribute meeting minutes.
- At the request of the CITY, coordinate and conduct monthly progress meetings and prepare and distribute meeting minutes; attendance at up to eight (8) meetings is assumed.
- At the request of the CITY, review up to forty (40) shop drawings and other construction related submittals.
- At the request of the CITY, the CONSULTANT will provide up to 60 hours to assist in the technical interpretations of the drawings, specifications, and contract documents, and evaluate requested deviations from the approved design or specifications.
- At the request of the CITY, perform a substantial completion inspection of the project and assist in the preparation of a punch-list.
- At the request of the CITY, perform a final completion inspection of the project.
- At the request of the CITY, provide on-site start-up assistance, a one (1) one-day site visit by two CONSULTANT personnel assumed. *PM & electrical*
- Prepare record drawings based on mark-ups from the CONTRACTOR.

## Deliverables

- Electronic copy of pre-construction meeting minutes
- Electronic copy of each progress meeting minutes
- Electronic copy of each additional meeting minutes
- Electronic copy of each reviewed shop drawings
- Electronic copy each Request for Information
- Electronic copy of punch list(s)
- One (1) full size copy, two (2) 11" x 17" copies, and one (1) electronic copy of record drawings in PDF and AutoCAD format

## Assumptions

The following assumptions were used in the development of this Task order

- Work under this Task Order will be completed in calendar year 2018.
- The design will be based on the federal, state, and local codes and standards in effect at the start of the project. Any changes in these codes may necessitate a change in scope.

- The design documents will be prepared for a single construction contract. Rehabilitation documents will be produced for Pump Stations C and E and the influent manhole at Pump Station D. The bid form will include Pump Stations C and E and manhole at D.
- The CONSULTANT's master specifications will be used as the basis for all technical sections in Divisions 1 through 49. The CONSULTANT's master specifications incorporating CITY requirements will be used for General Conditions, Supplemental Conditions, and other front end documents.
- Legal, easement, or plat surveys are not included in the scope of work. If additional property is required it shall be the responsibility of the City to obtain.
- Existing pump station Record Drawings will be used when available for pump station layout.
- Unless otherwise specified, meetings listed herein will be conducted by the CONSULTANT. The CONSULTANT will prepare the meeting Agenda as well as the Minutes.
- Unless otherwise specified, it is assumed that meetings will be attended in person by CONSULTANT's Project Manager, with Technical Design Consultants available by phone as required.
- Geotechnical is not included in the scope of work.
- A survey will be performed for the extended force main at Pump Station E.
- This Task Order assumes that no FDEP permit is required for each pump station.
- This Task Order does not include any Building Department permit applications.
- The contract will be awarded after the first bidding process. Re-bidding will be considered as an "Additional Services".

## Obligations of the CITY

To assist meeting schedule and budget estimates contained in this proposal, the CITY will provide the following:

- Prompt review and comment on all deliverables (within 10 working days of receipt).
- Facilitate access to any required facilities
- Attendance of key personnel at meeting as requested

## Additional Services

The CONSULTANT will, as directed, provide additional services that are related to the project but not included within this Scope of Services. These and other services can be provided, if desired by the CITY, as an amendment to the Task Order. Work will begin for the Additional Services after receipt of a written notice to proceed from the CITY. Additional services may include, but are not limited to, the following:

- Detailed Design of additional rehabilitation to the wastewater pump stations not already identified above.
- Re-bidding any, or all, portions of this project.



- Review of Contractor pay applications.
- Application for a Building Permit (if necessary).
- Permitting for the Florida Department of Environmental Protection if required

## Compensation

The estimated compensation for TASK ORDER 4-18 SWR, is a not to exceed total \$299,630. Attachment A entitled TASK ORDER 4-18 SWR COMPENSATION, presents costs by task, subtask, and per diem code.

## Completion Dates

Design Phase may begin as soon as the Task Order is Executed. Periods of performance shown below are assumed to run consecutively, with the Kick-off meeting occurring within 2 weeks of receiving Notice to Proceed.

Kick-off meeting	2 weeks
60% Design submittal	6 weeks
60% Submittal review period	2 weeks
60% to 90% submittal	4 weeks
90% submittal review	2 weeks
90% to Bid Documents	2 weeks
<b>Design Phase TOTAL</b>	<b>18 weeks</b>
 Bid Phase	 4 weeks
Construction Phase	8 months (32 weeks)
 Minimum Project Duration	 54 weeks
(not including time required for City Commission consideration of responsive bids)	



## Attachment A Compensation

TASK ORDER 4-18 SWR : PS C Rehabilitation and PS E Generator and Platform Replacement											
Title	Engineer 5	Engineer 4	Engineer 3	Technician 5	Technician 4	Spec Processor	Clerical / Office	Subtask Labor Total	Expenses	Travel	Task/Line Item Subtotal
Rate	\$ 181.88	\$ 157.18	\$ 134.72	\$ 114.52	\$ 102.17	\$ 79.71	\$ 71.85				
<b>A.1 - Preliminary Design</b>											
Kick off meeting	\$ 14	\$ 6	\$ 2	\$ -	\$ -	\$ -	\$ 2	\$ 3,903	\$ -	\$ -	\$ 3,909
60% Design	\$ 98	\$ 120	\$ 56	\$ 138	\$ 100	\$ 24	\$ 6	\$ 72,595	\$ 2,000	\$ 1,500	\$ 76,095
60% review meeting/responses	\$ 24	\$ 32	\$ 8	\$ 32	\$ 16	\$ -	\$ 4	\$ 16,059	\$ 500	\$ -	\$ 16,559
Hours Subtotal	\$ 136	\$ 158	\$ 66	\$ 170	\$ 116	\$ 24	\$ 12	\$ 682	---	---	---
Cost Subtotal	\$ 24,736	\$ 24,834	\$ 8,892	\$ 19,468	\$ 11,852	\$ 1,913	\$ 862	\$ 92,557	\$ 2,500	\$ 1,500	\$ 96,557
<b>A.2 - Final Design</b>											
90% Documents	78	124	60	152	100	32	8	\$ 72,510	\$ -	\$ -	\$ 72,510
90% review meeting/responses	52	20	8	20	16	0	4	\$ 17,892	\$ 500	\$ -	\$ 18,392
Bid Documents	22	16	4	24	12	4	8	\$ 11,923	\$ -	\$ -	\$ 11,923
Hours Subtotal	152	160	72	196	128	36	20	764	---	---	---
Cost Subtotal	\$27,646	\$25,149	\$9,700	\$22,446	\$13,078	\$2,870	\$1,437	\$102,325	\$500	\$0	\$102,825
<b>B - Permitting</b>											
FDEP Letter	8	4	0	0	0	0	4	\$ 2,371	\$ 50	\$ -	\$ 2,421
Hours Subtotal	8	4	0	0	0	0	4	16	---	---	---
Cost Subtotal	\$1,455	\$629	\$0	\$0	\$0	\$0	\$287	\$2,371	\$50	\$0	\$2,421
<b>C - Bid Phase Services</b>											
Pre-bid meeting	5	0	0	0	0	0	0	\$ 909	\$ 50	\$ -	\$ 959
RFI/Response to bidders/addenda	12	10	2	71	4	4	4	\$ 13,170	\$ -	\$ -	\$ 13,170
Bid opening/Evaluation/award ltr	8	0	0	0	0	0	0	\$ 1,455	\$ -	\$ -	\$ 1,455
Execute contract documents	7	6	2	5	2	2	2	\$ 3,566	\$ 500	\$ -	\$ 4,066
Hours Subtotal	27	16	4	76	6	6	6	141	---	---	---
Cost Subtotal	\$4,911	\$2,515	\$539	\$8,704	\$613	\$478	\$431	\$18,190	\$550	\$0	\$19,650
<b>D - Construction Phase Services</b>											
Pre-Con Meeting	4	0	0	0	0	0	4	\$ 1,015	\$ -	\$ -	\$ 1,015
Progress meetings	40	0	0	4	0	0	12	\$ 8,595	\$ -	\$ -	\$ 8,595
Submittals	34	68	22	0	0	0	40	\$ 22,710	\$ -	\$ -	\$ 22,710
RFI/Change Orders	20	15	8	11	4	0	24	\$ 10,466	\$ -	\$ -	\$ 10,466
Site Visits	48	24	0	0	0	0	2	\$ 12,646	\$ -	\$ -	\$ 12,646
Record Drawings	20	16	6	28	12	0	6	\$ 11,825	\$ 500	\$ -	\$ 12,325
Closeout/Startup	12	24	0	0	0	0	8	\$ 6,530	\$ -	\$ 4,800	\$ 11,330
Hours Subtotal	178	147	36	43	16	0	96	516	---	---	---
Cost Subtotal	\$32,375	\$23,105	\$4,850	\$4,924	\$1,635	\$0	\$6,898	\$73,787	\$500	\$4,800	\$79,087
Total Hours by Per Diem Rate	501	485	178	485	266	66	138				
Total Fee Estimate by Per Diem Rate	91,121.88	76,232.30	23,980.16	55,542.20	27,177.22	5,260.86	9,915.30		4,100.00	6,300.00	
											TO Total Labor 289,229.92
											TO Total Expenses 10,400.00
											TO 3-18 Contract Total 299,629.92