

TASK ORDER 4-13 STM

ENGINEERING SERVICES FOR THE DESIGN, PERMITTING AND BID  
PHASE SERVICES FOR THE PROPOSED OUTFALL AT THE NORTH END OF  
SIMONTON STREET

This TASK ORDER 4-13 STM is issued under the terms and conditions of the 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") dated on November 19, 2012, which is incorporated herein by this reference.

A. SCOPE OF SERVICES

Specific services which the ENGINEER agrees to furnish are summarized on the attached statement entitled TASK ORDER NO 4-13 STM "SCOPE OF SERVICES". The "Scope of Services" defines the work effort anticipated for the Task Order.

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 TASK ORDER NO 4-13 STM, Tasks 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 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 NO 4-13 STM COMPENSATION.

D. ACCEPTANCE

By signature, the parties each accept the provisions of this TASK ORDER NO. 4-13 STM, and authorize the CONSULTANT to proceed at the direction of the CITY's representative in accordance with Article 3, "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.

By: William D. Beddow, P.E.  
Vice President  
Andrew H. Smyth, P.E.  
Key West Office Manager

For CITY OF KEY WEST

By: Bob Vitas  
City Manager  
Dated the 6<sup>th</sup> day of June, 2013  
ATTEST: [Signature]

## TASK ORDER 4-13 STM

### ENGINEERING SERVICES FOR THE DESIGN, PERMITTING AND BID PHASE SERVICES FOR THE PROPOSED STORMWATER OUTFALL AT THE NORTH END OF SIMONTON STREET

#### SCOPE OF SERVICES

##### **Project Description**

The City of Key West (CITY) plans to design and construct a pipeline that will connect to existing pump station SWS-5, and terminate at a new stormwater outfall structure at the north end of Simonton Street in order to reduce area flooding during heavy storm events. Stormwater pump station (SWS-5) currently pumps stormwater collected from the area to deep injection wells approximately 100 feet below ground elevation. During high flows, the pump station overflows, plugging the well which then needs to be taken offline for cleaning. This project will also include a new emergency generator mounted on a raised platform above the flood elevation.

##### **Purpose**

The CITY has requested that the ENGINEER provide engineering services for the design, permitting and bid phase services for the proposed stormwater outfall, connecting piping, and emergency generator with platform at the north end of Simonton Street. This Task Order describes the ENGINEER's Scope of Services. Specific activities to be performed under this Task Order include:

- Conceptual Design and review of two (2) outfall route alternatives and a recommendation
- Proposed layout of the site with the emergency generator platform
- Detailed Design for the chosen outfall route alternative with emergency generator with platform
- Preparation of Bid Documents
- Bid Phase Services

##### **Scope of Services**

The following tasks describe the activities to be performed and the work products to be prepared by the ENGINEER.

##### **Task A – Preliminary Design**

ENGINEER will provide professional engineering services required for the planning and conceptual design of the North Simonton Street Outfall. Route A will discharge the stormwater next to an existing dock on the west side and Route B will discharge to and

existing riprap area directly north of the bathroom. Both Routes will connect to the pump station discharge header between the pump station and drainage well 05-2. The design also includes an emergency generator with platform and the following:

- Development of the basis of design for the outfall including evaluation of two (2) alternative options.
- Size the emergency generator for the stormwater pump station.
- Size the generator platform based on the generator size and electrical requirements.
- Magnitude of cost for the two alternatives.

### **Deliverables**

Two (2) copies of a technical memorandum with an alternative recommendation

#### **Subtask A.1 – Field Survey and Geotechnical Investigation**

The ENGINEER shall retain a professional land surveyor to conduct a topographic survey of the SWS-5 site. The survey shall locate all known existing infrastructure and other physical features within the depicted survey limits, including existing above ground utilities.

Elevations will be provided in accordance with accepted standards using NGVD 1929 Datum. Horizontal coordinates shall be in U.S. Survey feet and reflect a projection of grid coordinates in the State of Florida Plane Coordinate System Transverse Mercator-West Zone, NAD 1983-1990.

An allowance of \$6,600 is included as part of this task to cover the cost of retaining a professional land surveyor.

The Engineer will also retain the services of a geotechnical subconsultant to conduct a geotechnical investigation at SWS 5 and the outfall location at the end of Simonton. The investigation will include two (2) Standard Penetration Test (SPT) (ASTM D-1586) borings up to twenty (20) feet below land surface (bls) at each location. The borings will not be terminated in very loose or deleterious material. Sieve analyses will be conducted on the two (2) soil samples collected from split spoon samples taken from the borings.

The ENGINEER and geotechnical subconsultant will prepare a geotechnical report documenting the results of the geotechnical field investigation. The report will include discussion of field procedures, boring logs, soil test data, and maps indicating the locations of all borings.

An allowance of \$4,000 is included as part of this task to cover the cost of retaining a geotechnical subconsultant.

### **Deliverables**

The following deliverables will be provided under this Task:

- One (1) copy of full size survey

- Two (2) copies of half size survey
- One (1) electronic copy of survey
- Two (2) copies of geotechnical report

## **Task B –Design**

This task includes activities related to the design of the new stormwater outfall and emergency generator system. This task is divided into two subtasks that would correspond to logical review milestones for the CITY.

### **Subtask B.1 – Detailed Design**

The ENGINEER will perform the work necessary to develop the design, based on the approved outfall route and generator location. The objectives of this task are to finalize design of the chosen alternatives and to communicate the design tasks to the CITY. The ENGINEER 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 plan base sheets. Prepare preliminary layout and set preliminary elevations
- Develop the preliminary outfall route and identify conflicts and how to resolve.
- Develop location of emergency generator platform, confirm the generator and platform sizes, and provide for the electrical requirements and upgrade SCADA system.
- Layout and connection requirements for the outfall
- Identify any potential constructability issues
- Prepare budget-level cost estimate
- 40% Design Review Meeting

### **Deliverables**

- Four (4) copies of detailed design, which includes preliminary drawings, design data, catalog cut sheets and 40% complete review documents, and an outline of the technical specifications (two (2) of these copies are for OMI).
- Four (4) copies of 40% construction cost estimate (two (2) of these copies are for OMI)
- Two (2) copies of 40% review meeting minutes

### **Subtask B.2 –Final Design**

During this subtask, the ENGINEER will complete the technical design based on the outcome of the 40% 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 legal and technical specifications, and contract documents, including bid forms, notice to bidders, general and supplemental conditions, bond forms, etc.
- Conduct 90% review meeting and incorporate review comments from CITY into the design documents, and submit final contract documents to the CITY.
- Based on the 90% documents, prepare updated final construction cost estimate.

### **Deliverables**

- Two (2) copies of final construction cost estimate
- Two (2) copies 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 C – Permitting**

The ENGINEER will provide to the CITY documentation, permits or correspondence letters from the following State, Federal and Local agencies, as applicable.

- Florida Department of Environmental Protection (FDEP).
- Environmental Resource Permit from the South Florida Water Management District (SFWMD).
- US Army Corps of Engineers (USACE) - copy of letter submitted to the USACE or a permit, or a letter stating that a permit is not required.
- US Fish and Wildlife (USFWS) - ENGINEER will provide correspondence letter.
- Copy of Public Notice with documentation that is published as well as documentation regarding whether any comments were received in response to the Public Notice.
- ENGINEER will provide signed and sealed plans, specifications and calculations for each permit

For purposes of budgeting, it is assumed that the USACE will allow a nationwide permit to be utilized because of the limited dredge and fill area. One Request for Information from the SFWMD will be addressed. One Request for Information from FDEP will be addressed.

The project, as conceived, is assumed to be permittable. However, if any agency determines that this is not the case or makes significant changes that may alter the design; this would warrant reconsideration of the scope and budget for continuation of the project.

### **Deliverables**

The following deliverables will be provided under this Task:

- Two (2) copies: Final permit applications with attachments for FDEP and SFWMD.
- Two (2) copies: correspondence letters, USACE, NFWS.
- Two (2) copies of Public Notice documentation.

## **Task D- Bid Phase Services**

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

- Provide copies of the contract documents and distribute such documents to the CITY.
- Coordinate with CITY to provide contract documents 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 ENGINEER.
- 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 a maximum of 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 engineer will prepare an award letter for the CITY recommending the successful bidder.
- After award, the ENGINEER will distribute to the successful contractor five sets of contract documents for execution. The contractor will be directed to return the documents to the ENGINEER for compliance review of the bidding requirements. After the ENGINEER reviews the contract documents, these five sets of documents will be sent to the CITY for final review and signatures.
- Prepare conformed contract documents for use by CITY, ENGINEER, and Contractor during construction.

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

## **Deliverables**

- Two (2) copies of Pre-bid meeting minutes
- Two (2) copies of recommendation of award letter
- Five (5) copies of Contract Documents for execution
- Four (4) copies of Conformed Contract Documents (two (2) of these copies are for OMI), two (2) full size set of drawings and one (1) CD containing specifications and drawings in PDF format.

- One (1) full size set of drawings, and one (1) CD containing specifications and drawings in PDF format to awarded contractor

## **Assumptions**

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

- The design work on this project will be completed in calendar year 2013.
- 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 CITY will install an isolation valve for each well located adjacent to the well during calendar year 2013 and will be complete before the design is completed.
- The contract documents will be prepared for a single construction contract.
- The ENGINEER's master specifications will be used as the basis for all technical sections in Divisions 1 through 49. The ENGINEER's master specifications incorporating CITY requirements will be used for General Conditions, Supplemental Conditions, and other front end documents.
- Legal, easement, or plat surveys will not be required.
- The RTU will be replaced with a TCU and connected to the existing SCADA system. The existing antenna will be relocated.
- The CITY will pay for all permit application fees.
- One response for additional information from each permitting agency is assumed.
- The contract will be awarded after the first bidding process. Re-bidding will be considered as "Additional Services".
- Any labor and expenses required to address construction claims, unforeseen subsurface considerations or additional construction time requested by the CONTRACTOR or OWNER will be considered as "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
- Payment of all permit application fees
- The CITY will be responsible for full-time resident observation and construction management.

## **Additional Services**

The ENGINEER 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:

- Re-bidding any, or all, portions of this project
- Services During Construction
- Additional permitting involving agencies other than the Florida Department of Environmental Protection.

## **Compensation**

The estimated compensation for TASK ORDER NO 4-13 STM, is shown on attachment A entitled TASK ORDER NO. 4-13 STM, COMPENSATION.

## **Completion Dates**

The estimated design schedule is showing on attachment B, TASK ORDER 4-13 STM, SCHEDULE.

**ATTACHMENT A**

TASK ORDER 4-13 STM, COMPENSATION

**Task Order 4-13 STM**

**Engineering Services for the Design, Permitting and Bid Phase Services for the Proposed  
Outfall at the North End of Simonton Street COMPENSATION**

<b>Task</b>	<b>Hours</b>	<b>Labor</b>	<b>Expenses</b>	<b>Total Cost</b>
Task A - Preliminary Design	219	\$28,133	\$10,950	\$39,083
Task B - Design	254	\$31,538	\$200	\$31,738
Task C - Permitting	168	\$22,522	\$2,200	\$24,722
Task D - Bid Phase Services	122	\$15,728	\$350	\$16,574
<b>Total</b>	<b>763</b>	<b>\$97,921</b>	<b>\$13,700</b>	<b>\$112,117</b>

COMPENSATION BREAKDOWN					
Task Order 4-13 Proposed Outfall/Simonton Street					
TASK NO.	TASK DESCRIPTION	HOURLY RATE	TOTAL HOURS	LABOR EXPENSES	TOTAL COST
<b>A Preliminary Design</b>					
	Principal Project Manager	\$ 182.00	5	\$910	\$910
	Sr. Technologist/Sr. Project Manager	\$ 167.00	23	\$3,841	\$3,841
	Project Manager, Engineering Specialist	\$ 154.00	40	\$6,160	\$6,160
	Project Engineer	\$ 132.00	73	\$9,636	\$9,636
	Technician 5	\$ 111.00	38	\$4,218	\$4,218
	Technician 4	\$ 99.00	24	\$2,376	\$2,376
	Specification Processor	\$ 87.00	0	\$0	\$0
	Clerical	\$ 62.00	16	\$992	\$992
	Surveying				\$6,600
	Geotech				\$4,000
	PRINTING/REPROGRAPHICS/PHONE				\$350
<b>Preliminary Design Total</b>			219	\$28,133	\$10,950
<b>B Design</b>					
	Principal Project Manager	\$ 182.00	4	\$728	\$728
	Sr. Technologist/Sr. Project Manager	\$ 167.00	24	\$4,008	\$4,008
	Project Manager, Engineering Specialist	\$ 154.00	44	\$6,776	\$6,776
	Project Engineer	\$ 132.00	56	\$7,392	\$7,392
	Technician 5	\$ 111.00	64	\$7,104	\$7,104
	Technician 4	\$ 99.00	28	\$2,772	\$2,772
	Specification Processor	\$ 87.00	26	\$2,262	\$2,262
	Clerical	\$ 62.00	8	\$496	\$496
	PRINTING/REPROGRAPHICS/PHONE				\$200
<b>Design SUBTOTAL</b>			254	\$31,538	\$200
<b>C Permitting</b>					
	Principal Project Manager	\$ 182.00	14	\$2,548	\$2,548
	Sr. Technologist/Sr. Project Manager	\$ 167.00	28	\$4,676	\$4,676
	Project Manager, Engineering Specialist	\$ 154.00	32	\$4,928	\$4,928
	Project Engineer	\$ 132.00	48	\$6,336	\$6,336
	Technician 5	\$ 111.00	6	\$666	\$666
	Technician 4	\$ 99.00	24	\$2,376	\$2,376
	Clerical	\$ 62.00	16	\$992	\$992
	TRAVEL				\$2,000
	PRINTING/REPROGRAPHICS/PHONE				\$200
<b>Permitting Subtotal</b>			168	\$22,522	\$2,200
<b>D Bid Phase Services</b>					
	Principal Project Manager	\$ 182.00	16	\$2,912	\$2,912
	Sr. Technologist/Sr. Project Manager	\$ 167.00	8	\$1,336	\$1,336
	Project Manager, Engineering Specialist	\$ 154.00	38	\$5,852	\$5,852
	Project Engineer	\$ 132.00	16	\$2,112	\$2,112
	Technician 5	\$ 111.00	12	\$1,332	\$1,332
	Technician 4	\$ 99.00	8	\$792	\$792
	Specification Processor	\$ 87.00	16	\$1,392	\$1,392
	Clerical	\$ 62.00	8	\$496	\$496
	PRINTING/REPROGRAPHICS/PHONE				\$350
<b>Bid Phase Services SUBTOTAL</b>			122	\$15,728	\$350
<b>PROJECT TOTALS</b>					
TOTAL HOURS			763		
TOTAL FEE ESTIMATE				\$97,921	\$13,700
					\$112,117

## **ATTACHMENT B**

TASK ORDER 4-13 STM, SCHEDULE

