TASK ORDER 4-12 SWR

ENGINEERING SERVICES FOR THE DESIGN, PERMITTING AND BID PHASE SERVICES FOR THE FLEMING KEY BRIDGE PIPE SUPPORT PILING REPAIRS

This TASK ORDER 4-12 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, Inc. ("ENGINEER") executed on September 18, 2007, which is incorporated herein by this reference.

A. SCOPE OF SERVICES

Specific services that the ENGINEER agrees to furnish are summarized on the attached statement entitled TASK ORDER 4-12 SWR 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 be completed expeditiously subject to coordination with the City of Key West staff. Work may be performed at any time as requested by the CITY within 24 months after the date of execution of this Task Order, at which time the Task Order will expire.

C. COMPENSATION

Compensation for the labor portions of TASK ORDER 4-12 SWR, Task A and B will be on a lump sum fee basis as stipulated in Article 2, Paragraph 2.1 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 2, Paragraph 2.2 of the AGREEMENT. The estimated compensation is shown on the attached statement entitled TASK ORDER 4-12 SWR COMPENSATION.

D. ACCEPTANCE

By signature, the parties each accept the provisions of this TASK ORDER 4-12 SWR, and authorize the ENGINEER to proceed at the direction of the City's representative in accordance with Article 1, SCOPE OF SERVICES. Start date for this Project will be no later than ten (10) days after execution of this authorization.

For CH2M HILL, INC.

By: _____
William D. Beddow, P.E.
Vice President

_____
Andrew H. Smyth, P.E.
Key West Office Manager

For CITY OF KEY WEST

By: _____
Jim Scholl
City Manager

Dated the _____ day of _____, 20__

ATTEST: _____

TASK ORDER 4-12 SWR

ENGINEERING SERVICES FOR THE DESIGN, PERMITTING AND BID PHASE SERVICES FOR THE FLEMING KEY BRIDGE PIPE SUPPORT PILING REPAIRS

SCOPE OF SERVICES

Project Description

The City of Key West (the City) is planning on implementing the recommendations of the 2003 Seamar Divers, Inc. Report, to repair the damaged precast concrete pilings, which support the primary influent piping that conveys sewage to the Richard A. Heyman Environmental Protection Facility (Wastewater Treatment Plant). The Seamar Report recommended that all of the existing support piling be repaired, by encapsulating each piling to prevent further deterioration, to increase structural integrity, and to provide less resistance to the tidal currents.

Additionally the City is looking into the potential of implementing reuse water for irrigation in areas of Key West. In order to supply reuse water to the City a new pipeline would need to be installed on the Fleming Key Bridge.

As part of the due diligence effort, the City completed a structural evaluation of the existing pipe support system and the potential impacts of the additional pipeline weight. The Technical Memorandum "Structural Evaluation of the Fleming Key Bridge Pipe Crossing Support Pilings, City of Key West, Florida, Work Order F-09 SWR" dated July 17, 2009, recommended a topside and underwater comprehensive inspection be completed and repairs be completed to bring the existing structure up to or exceeding its original "as-built" or "new" condition.

Currently the Fleming Key Bridge pipe crossing piling system is not in an "*as-built*" or "*new*" condition. The repair recommendations of the 2003 Seamar Report have not yet been implemented, and the structural condition of the precast concrete support piling has most definitely deteriorated further during the last 9 years. Accordingly, it is recommended that a new, more comprehensive topside and underwater structural evaluation be performed to determine the current condition of the structural elements. It is recommended that the repairs from this more comprehensive inspection and evaluation be accomplished to bring the existing structure up to or exceeding its original "*as-built*" or "*new*" condition. Based on the current structural condition of the existing pipe crossing piling support system, it is not recommended that any additional weight be added to the support piling, without implementing the recommended repairs.

The City attempted to work with the Navy to complete the recommended repairs under last year's Navy design/build construction contract for the Fleming Key Bridge improvements, but was unsuccessful.

Purpose

The CITY has requested that the ENGINEER provide engineering services for the design, permitting and bid phases services for the proposed improvements to Fleming Key Bridge Pipe Support Pilings.

Specific activities to be performed under this Work Order include:

- Prepare a Preliminary Design Memorandum (PDM)
- Provide detailed design with submission of 90% documents for review and provide bid documents
- Permitting
- Bid Phase Services

Scope of Services

The scope of services provided below addresses the work to be completed for the Project.

Task A – Preparation of the Preliminary Design Memorandum

ENGINEER shall meet with CITY at a kickoff meeting in Key West to discuss and determine the proposed piling repairs, obtain all available information on the existing structure and perform a comprehensive topside and underwater inspection of the existing pilings. The ENGINEER will prepare a Preliminary Design Memorandum (PDM) that will include:

- The ENGINEER shall retain the services of an underwater inspection company to perform a sub structural inspection of the existing pilings.
- The ENGINEER will prepare comprehensive topside structural evaluation to determine the current condition of the existing pilings.
- Repair methods to be included in the construction documents.
- Preliminary probable construction cost estimate.

An $18,000 budget has been included in this subtask for the underwater inspection services.

Deliverables

- Two (2) copies of kick-off meeting minutes
- Four (4) copies of draft 90% PDM for review and approval prior to start of detailed design
- Four (4) copies of 100% PDM after incorporation of review comments

Task B – Detailed Design

This task entails activities related to the detailed design of the Fleming Key Bridge Pipe Support Piling repairs.

The design will be completed based upon comments received during the Preliminary Design Memo submission. Final contract drawings and specifications will be prepared. 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:

- Finalize technical design specifications and drawings.
- 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 Bid Documents.
- Based on the 90% documents, prepare updated final probable construction cost estimate.
- Submit final Bid Documents to the CITY.

Deliverables

- Four (4) copies 90 % review documents; drawings and specifications
- Two (2) copies of final probable construction cost estimate
- Four (4) copies and one (1) electronic copy of Bid Documents, including drawings and specifications

Task C – Permitting

C.1 Pre-Permitting

ENGINEER will conduct permit pre-application phone calls with State and Federal agencies:

- Research appropriate permit type (e.g., general, state programmatic, nationwide, etc.)
- Perform a submerged benthic survey to determine the presence of any submerged aquatic vegetation or corals. If present, CH2M HILL will document species composition, coverage, and relative health within the project area.

C.2 Permit Application Completion and Submittal

ENGINEER will prepare the necessary permit application and submit to the following agencies:

- FDEP (or SFWMD) and USACE Joint Environmental Resource Permit (ERP) Application

Each application will include, but not be limited to the following information:

- Requisite permit drawings (e.g., location map, plan views, and cross sections) indicating the proposed repairs.
- Administrative information including applicant data and legal information.
- Ownership documents for submerged land areas.
- Project narrative discussing the need for the project.
- Description of benthic organisms, identification of flora and fauna, characterization of dominate and important flora and percent cover on pilings to be repaired. Adjacent submerged bottom areas will also be reviewed to assess any indirect impacts to benthic organisms.
- Any additional, pertinent information obtained during the data collection phase of the project that supports the issuance of the required permit.

All draft application packages will be submitted to the City for review and comment. Revised application packages will be compiled and submitted individually to the State and USACE. The CITY will be responsible for all permit application fees.

C.3 Permit Inquiry and Response

ENGINEER will prepare a response to a single Request for Additional Information (RAI) inquiry from each of the involved State and Federal agencies. A response will also be provided to comments from the review agencies such as the FFWCC, USFWS, and NMFS. All responses will be submitted to the CITY for review and comment. Revised responses will then be submitted directly to the appropriate agencies.

Deliverables

The following deliverables will be provided under this Task:

- Two (2) copies of all completed permit applications associated with the project.
- Two (2) copies of RAI responses.

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:

- Coordinate with CITY to provide Bid Documents to DemandStar uploading.
- 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 bidders with the scope of work and to answer questions that may arise.
- Issue 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 (5) sets of Contract Documents for execution. The Contractor will be directed to return the executed Contract Documents to the ENGINEER for compliance review of the bidding requirements. After the ENGINEER reviews the Contract Documents, the five (5) sets will be sent to the CITY for final review and execution.
- Prepare Conformed Contract Documents for use by CITY, ENGINEER, and Contractor during construction.

Bid phase services will be considered complete upon the ENGINEER's review and forwarding of the Contractor's executed Contract Documents to the CITY, and submittal of Conformed Documents to the CITY.

Bid Phase 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
- Eight (8) copies of 11x17 Conformed Contract Documents, two (2) sets full size drawings and two (2) electronic copies. (Two 11x17, one full-size and one electronic are assumed to be delivered 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 2012.
- Bid advertisement will occur in calendar year 2012
- The Kick-off meeting will be held in Key West and scheduled to coincide with the underwater inspections.
- 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 and fee.
- The design documents will be prepared for a single construction contract.

- The CITY will make available any studies, reports, "as-built" or "record" drawings completed for the existing bridge in its possession.
- The ENGINEER's master specifications will be used as the basis for all technical specification 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.
- The Engineer assumes that the Fleming Key Bridge is structurally adequate and no additional design or repairs for the bridge are included in this project.
- An $18,000 budget has been included for an underwater substructure evaluation and condition survey.
- Circulation/Flushing Surveys or Assessments, water and Sediment Quality testing, Benthic Infauna Testing and Mitigation planning and design are not included in this scope of work.
- Sovereign Submerged Lands Permitting/Approval are not included in this scope of work.
- Legal, easement, or plat surveys will not be required.
- The CITY will pay for all permit application fees.
- Submission of up to two (2) sets of signed and sealed drawings and specifications for permitting purposes are included, in addition to permitting requirements.
- Engineer assumes one (1) RAI response to each permitting agencies for permit will be required. A total of three (3) RAI's are assumed.
- Bid phase services are based on a 30 day bid period and assume up to three (3) addenda will be issued. All Bid Documents and Addenda will be provided in electronic format for uploading to DemandStar by City.
- The Contract will be awarded after the first bidding process. Re-bidding will be considered as an "Additional Service".

Obligations of the CITY

To assist meeting schedule and budget estimates contained in this Task Order, 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
- Provide all available studies, reports and/or existing environmental data from the project area, bridge record drawings or as-built drawings, and specifications
- Any other information in the possession of the City, which may be pertinent to the permitting of the project.

- Attendance of key personnel at meeting as requested
- Payment of all permit application fees

Additional Services

The ENGINEER will, as directed by the CITY, 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 awarded by the CITY, as an amendment to this 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 including preparation of changes to the project because of causes external to performance of detailed design, such as changes in bid climate, equipment and material costs
- Additional permitting involving agencies other than those listed in task C
- Construction Phase Services

Compensation

The estimated compensation for TASK ORDER 4-12 SWR, is shown on Attachment "A" entitled TASK ORDER 4-12 SWR, COMPENSATION.

Completion Dates

See the preliminary project schedule presented below.

Task	**Proposed Dates**
Kick-off Meeting	Within 4 weeks after NTP
Preliminary Design Memo	8 weeks after NTP
90% Design Documents	8 weeks after receipt of Preliminary Design Memo review comments
Bid Documents	2 weeks after receipt of 90% document review comments
Permitting	TBD
Bid Phase Services	TBD

Attachment A

TASK ORDER 4-12 SWR, COMPENSATION

TASK ORDER 4-12 SWR
COMPENSATION

ENGINEERING SERVICES FOR DESIGN, PERMITTING, AND BID PHASE SERVICES FOR THE FLEMING KEY BRIDGE PIPE SUPPORT PILING REPAIRS

Task	Hours	Labor	Expenses	Total Cost
Task A1 - Preliminary Design Report	132	$16,174	$20,400	$36,574
Task B1 - Design Phase	394	$43,790	$1,550	$45,340
Task C1 - Permitting	162	$19,734	$1,700	$21,434
Task D1 - Bid Phase	100	$10,956	$1,450	$12,406
Total	**788**	**$90,654**	**$25,100**	**$115,754**

COMPENSATION BREAKDOWN
Task Order 4-12 SWR

TASK NO.	TASK DESCRIPTION	HOURLY RATE	TOTAL HOURS	LABOR	EXPENSES	TOTAL COST
A	**Preliminary Design Report**					
	Principal PM/Principal Technologist	$172.00	18	$3,096		$3,096
	Senior Technologist/Senior PM	$158.00	6	$948		$948
	Senior Professional	$148.00	40	$5,920		$5,920
	Assoc Engineer	$110.00	42	$4,620		$4,620
	Senior Project Assistant	$ 63.00	20	$1,260		$1,260
	Clerical	$ 55.00	6	$330		$330
	(1) - 4 Day trip to KWF				$2,000	$2,000
	Underwater Inspection Allowance				$18,000	$18,000
	Printing/Reprographics/Shipping				$400	$400
Preliminary Design Report SUBTOTAL			132	$16,174	$20,400	$36,574
B	**Design Phase**					
	Principal PM/Principal Technologist	$172.00	36	$6,192		$6,192
	Senior Technologist/Senior PM	$158.00	16	$2,528		$2,528
	Senior Professional	$148.00	40	$5,920		$5,920
	Assoc Engineer	$110.00	124	$13,640		$13,640
	Tech 5	$103.00	16	$1,648		$1,648
	Tech 4	$ 93.00	96	$8,928		$8,928
	Technical Editor/Spec Processor	$ 84.00	40	$3,360		$3,360
	Senior Project Assistant	$ 63.00	18	$1,134		$1,134
	Clerical	$ 55.00	8	$440		$440
	(1) - 2 Day trip to KWF				$950	$950
	Printing/Reprographics/Shipping				$600	$600
Design Phase SUBTOTAL			394	$43,790	$1,550	$45,340
C	**Permitting**					
	Principal PM/Principal Technologist	$172.00	40	$6,880		$6,880
	Senior Technologist/Senior PM	$158.00	4	$632		$632
	Senior Professional	$148.00	4	$592		$592
	Assoc Engineer	$110.00	96	$10,560		$10,560
	Senior Project Assistant	$ 63.00	10	$630		$630
	Clerical	$ 55.00	8	$440		$440
	(2) - 2 Day trip to KWF				$1,300	$1,300
	Printing/Reprographics/Shipping				$400	$400
Permitting SUBTOTAL			162	$19,734	$1,700	$21,434
D	**Bid Phase**					
	Principal PM/Principal Technologist	$172.00	10	$1,720		$1,720
	Senior Technologist/Senior PM	$158.00	2	$316		$316
	Senior Professional	$148.00	24	$3,552		$3,552
	Assoc Engineer	$110.00	16	$1,760		$1,760
	Tech 5	$103.00	2	$206		$206
	Tech 4	$ 93.00	10	$930		$930
	Technical Editor/Spec Processor	$ 84.00	12	$1,008		$1,008
	Senior Project Assistant	$ 63.00	18	$1,134		$1,134
	Clerical	$ 55.00	6	$330		$330
	(1) - 2 Day trip to KWF				$950	$950
	Printing/Reprographics/Shipping				$500	$500
Bid Phase SUBTOTAL			100	$10,956	$1,450	$12,406
PROJECT TOTALS						
	TOTAL HOURS		788			
	TOTAL FEE ESTIMATE			$90,654	$25,100	$115,754
TO 4-12 SWR TOTAL			**788**	**$90,654**	**$25,100**	**$115,754**