#### **TASK ORDER 5-12 PORTS**

# ENGINEERING SERVICES FOR THE EVALUATION, TESTING AND STATEMENT OF WORK FOR MAINTENANCE AND REPAIRS OF THE NAVY MOLE ELECTRICAL DISTRIBUTION SYSTEM

This TASK ORDER 5-12 PORTS 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. ("ENGINEER") executed on September 18, 2007, 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 5-12 PORTS "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 September 18, 2007, 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. Work may be performed at any time as requested by the CITY within 12 months after the date of execution of this Task Order, at which time the Task Order will expire.

#### C. COMPENSATION

Compensation for labor portion of TASK ORDER 5-12 PORTS, Task A will be on a lump sum fee basis as stipulated in Article 2, Paragraph 2.1 of the AGREEMENT. Compensation for 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 5-12 PORTS COMPENSATION.

#### D. ACCEPTANCE

By signature, the parties each accept the provisions of this TASK ORDER 5-12 PORTS, and authorize the ENGINEER 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:		By:				
J	William D. Beddow, P.E.	Jim Scholl				
	Vice President	City Manager				
		Dated the day of, 20				
	Andrew H. Smyth, P.E.					
	Key West Office Manager	ATTEST:				

1

#### **TASK ORDER 5-12 PORTS**

# ENGINEERING SERVICES FOR THE EVALUATION, TESTING AND STATEMENT OF WORK FOR MAINTENANCE AND REPAIRS OF THE NAVY MOLE ELECTRICAL DISTRIBUTION SERVICES

### **SCOPE OF SERVICES**

# **Project Description**

The City of Key West (CITY) is working with the Navy to repair the existing electrical services on at the Mole Pier. The Navy has performed a visual inspection of the four (4) existing 13.8 kV to 480 V unit substations with corresponding switchgear that are used to provide shore power to ships berthed at the Mole Pier. The report identified that all electrical equipment is showing signs of significant deterioration due to the high salt environment. This equipment is further described in the design drawings (Exhibit A) navy drawings contract number N62427-03-C-0154 sheets E-1 through E-20A and as further described in field report dated February 2012 (Exhibit B)

The Navy is scheduling the arrival of a large number of Navy vessels planned to be berthed at the Mole Pier in September of this year. The Navy, in conjunction with the CITY has a mutual goal of making the required maintenance, repair and/or replacement to the existing equipment prior to the vessels arriving.

Due to the accelerated schedule and limited time to accomplish the repairs, the CITY has requested that the ENGINEER provide the services required to prepare a "statement of work" that will be utilized by the CITY and Navy to bid and construct the improvements.

## Purpose

The CITY has requested that the ENGINEER provide engineering services for the evaluation, testing and preparation of statement of work for the Mole Pier electrical maintenance and repairs.

# **Scope of Services**

The scope of services provided below addresses the work to be completed for the project. The scope of work for this project will result in the following deliverables:

- Evaluation and testing of the existing electrical equipment
- Provide an engineer's statement of probable construction costs.
- Prepare Statement of Work for recommended repairs

# Task A - Evaluation, Testing and Statement of Work

The Engineer will provide data collection, field investigations, testing and evaluations sufficient to provide a detailed statement of work to be used to construct the electrical repairs at the Mole Pier.

#### A.1 Field Assessment

The Engineer will visit the site to gather existing data, evaluate, document and photograph the existing electrical equipment and current condition. During the site visit the Engineer will obtain existing data, including record drawings and manufacturers information use in developing the standards for the Statement of work.

Additionally the engineer will determine the amount of electrical testing required and will develop a scope of work for maintenance, repair and testing to be used in Task A.2.

#### A.2 Electrical Maintenance, Repair and Testing

The Engineer shall retain services of a InterNational Electrical Testing Association (NETA) certified technician(s) to perform maintenance, repair, and testing services on the existing equipment according to ANSI/NETA 2011 Standard for Maintenance Testing Specifications.

The testing services will be summarized in a report which will include equipment suggested for replacement or repair and equipment which may be retained in current condition. The testing report will also confirm the level of effort and the amount of repair/replacement of materials that will be included in the Statement of Work.

The Engineer and certified technician will prepare an evaluation report documenting the results of the maintenance, repairs, and testing required to bring entire electrical shore power on Mole pier up to 100% operation by August 31, 2012. The report will include a discussion of field procedures, test data, and a bill of materials for equipment requiring replacement.

Based on the information obtained in the report and the forthcoming modified statement of work the ENGINEER will finalize the results and recommendations for repair and replacement.

An allowance of \$20,000 is included as part of this task to cover the cost of retaining a NETA certified technician.

The equipment to be evaluated and tested:

- 1. Six (6) S&C, SF-6, 15 kV rated switches
- 2. Four Unit Substations each unit substation includes:
  - a. Oil Filled Transformer
  - b. 480 Volt Cutler Hammer Circuit Breakers, CTs, relays, and control circuitry
  - c. 15 kV cable from SF-6 switch to each termination cabinet of each unit substation

#### **Deliverables**

- Four (4) copies of the testing report.

#### A.3 Statement of Work

During this subtask, the ENGINEER will prepare the Statement of Work for the Navy and City to utilize for procuring construction services.

Specific work activities in this task are identified below:

- Draft preliminary Statement of work for Navy/City review;
  - Develop technical information required for the replacement and repair of the existing electrical equipment.
  - Prepare/modify existing drawings with photo references for use with the construction package
- Prepare engineer's statement of probable construction costs.
- Conduct a review meeting and incorporate review comments from City and Navy into design documents, and submit final Statement of Work to the CITY

#### **Deliverables**

- Electronic copies: Draft Statement of Work
- Two (2) copies: Engineers probable construction cost estimate
- Eight (8) copies: Final Statement of Work, including drawings and technical information and two (2) CD's in PDF format.

## Assumptions

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

- The Configuration of connection existing at the MOLE pier for water, sewer and electrical are compatible with the vessels which will moor at the existing MOLE Piers
- Bid phase and construction phase services are not included in this scope of work.
- No permits are required for the proposed work. Any local permits required will be obtained by awarded construction contractor.
- Electrical equipment can be de-energized during evaluations and testing tasks.
- No work will be completed on the existing water and sewer utilities.
- Work on this entire project, including all maintenance, repairs and testing will be completed by August 31, 2012. This task order shall be completed and delivered by May 4, 2012.
- Meetings will be held in Key West and attended by up to two (2) consultant's staff, additional consultants staff may attend via conference call.
- Consultants and City's QC reviews will occur concurrently in order to meet schedule.
- 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 Statement of Work documents will be prepared for a single construction contract.
- It will be assumed that all projects will be located in City/Navy owned property.
- The City will coordinate and assist in all Navy involvement and Engineers site visits.
- Bid phase services will be completed by City/Navy.
- 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:

- The CITY will provide available drawings and manufacturer's information for electrical, water and wastewater utilities.
- Prompt review and comment on all deliverables. Review comments shall be submitted back to the Consultant within one week of deliverable.
- Facilitate access to any required facilities.
- Attendance of key personnel at meeting as requested.

## **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:

- Additional design services if requested by the City
- Permitting phase services
- Bid Phase Services
- Procurement Services
- Construction Phase Services

# Compensation

The estimated compensation for TASK ORDER 5-12 PORTS is shown on Attachment A entitled TASK ORDER 5-12 PORTS, COMPENSATION.

# **Completion Dates**

The proposed completion dates for the tasks are as follows:

Site Visit	2 weeks after notice to proceed
Draft Statement of Work and Testing Scope	1 week after site visit
Electrical Testing and Cleaning	TBD
Submit Final Statement of Work	2 weeks after receipt of City draft review comments

# Attachment A TASK ORDER 5-12 PORTS COMPENSATION

#### **TASK ORDER 5-12 PORTS COMPENSATION**

# ENGINEERING SERVICES FOR THE EVALUATION, TESTING AND STATEMENT OF WORK FOR MAINTENANCE AND REPAIRS OF THE NAVY MOLE ELECTRICAL DISTRIBUTION SYSTEM

Task	Hours	Labor	Expenses	<b>Total Cost</b>
Task A - Evaluation, Testing and Statement of Work		\$27,150	\$22,200	\$49,350
Total	207	\$27,150	\$22,200	\$49,350

COMPENSATION BREAKDOWN Task Order 5-12 PORTS									
TASK NO.	TASK DESCRIPTION	HOURLY RATE	TOTAL HOURS	LABOR	EXPENSES	TOTAL COST			
Α	Evaluation, Testing, SOW								
	Principal PM/Principal Technologist	\$172.00	22	\$3,784		\$3,784			
	Senior Technologist/Senior PM	\$158.00	45	\$7,110		\$7,110			
	Senior Professional	\$148.00	76	\$11,248		\$11,248			
	Project Professional	\$122.00	8	\$976		\$976			
	Assoc Engineer	\$110.00	0	\$0		\$0			
	Tech 4	\$ 93.00	16	\$1,488		\$1,488			
	Specification Processor	\$ 84.00	8	\$672		\$672			
	Senior Project Assistant	\$ 63.00	14	\$882		\$882			
	Clerical	\$ 55.00	18	\$990		\$990			
	(2) - 2 Day trip to KWF				\$2,000	\$2,000			
	Electrical Testing Sub Allowance				\$20,000	\$20,000			
	Printing/Reprographics/Shipping				\$200	\$200			
Evaluati	ion, Testing, SOW SUBTOTAL		207	\$27,150	\$22,200	\$49,350			
PROJECT TOTALS									
	TOTAL HOURS		207						
	TOTAL FEE ESTIMATE			\$27,150	\$22,200	\$49,350			
TO 5-12 PORTS TOTAL			207	\$27,150	\$22,200	\$49,350			

# Exhibit A NAVY DRAWINGS CONTRACT NO. N62427-03-C-0154 SHEETS E-1 THROUGH E-20A

# Exhibit B FIELD REPORT DATED FEBRUARY 2012