

TASK ORDER 4-19 ENGINEERING
ENGINEERING SERVICES FOR PAVEMENT MANAGEMENT AND
ASSESSMENT REPORT FOR THE CITY OF KEY WEST

This TASK ORDER 4-19 ENG 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 November 3, 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 4-19 ENG "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 3, 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. 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 the labor portions of TASK ORDER 4-19 ENG, Tasks A will be on a lump sum fee basis as stipulated in Article 2, Paragraph 2.1 of the AGREEMENT. Compensation for subconsultants 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 4-19 ENG COMPENSATION.

D. ACCEPTANCE

By signature, the parties each accept the provisions of this TASK ORDER 4-19 ENG, 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 two (2) days after execution of this authorization.

For CH2M HILL, INC.

For CITY OF KEY WEST

By: _____
Sirpa H. Hall, P.E.
Senior Business Vice President

By: _____
Jim Scholl
City Manager

Sean McCoy, P.E.
Key West Project Manager

Dated the ____ day of _____, 2018

ATTEST: _____

TASK ORDER 4-19 ENGINEERING
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SCOPE OF SERVICES

Project Description

Pavement Management

The City of Key West (CITY) owns approximately 100 miles of paved streets. With current FDOT (state averaged) estimated costs of \$547,000 per mile for milling and resurfacing, and at \$4,982,000 per mile for new construction, the City has a substantial investment in its paved roadway structures. Preservation of existing street systems is a priority for all levels of government. Funds designated for street maintenance and rehabilitation are typically in short supply and must be used as effectively as possible. One proven method to obtain maximum value of available funding for street preservation is through the use of a pavement management system.

Pavement management is the process of planning, budgeting, funding, designing, constructing, monitoring, evaluation, maintaining, and rehabilitating the pavement network to provide maximum benefits for available funds. A pavement management *system* is a set of tools or methods that assists decision makers in finding optimum strategies for providing and maintaining pavement in a serviceable condition over a given time period. A properly implemented paving program enables a city to apply appropriate pavement surface treatments with the goal of bringing the streets to an acceptable level using reasonable operational costs. Having a prioritized plan assists in advance planning, is necessary to obtain FDOT funding, provides capital planning tools for the City's budget, and helps coordination with other utility projects to avoid disturbing newly paved streets.

The project includes verifying all streets in the City's network, conducting pavement condition surveys on each street to develop a pavement condition rating, and preparing a report including all the data and recommendations for implementing pavement management strategies based funding levels designated by the City.

Purpose

The CITY has requested that the CONSULTANT provide engineering services for a pavement assessment of the City-owned streets of Key West as well as College Road on Stock Island. This Task Order describes the CONSULTANT's Scope of Services. Specific activities to be performed under this Task Order include:

- Verification of all streets in the City's network
- Pavement condition survey of each street to develop a pavement condition rating and summarize results in a pavement assessment report
- Development of 5-year Pavement Management Plan that is flexible to accommodate goals and values of the City and community and is also transparent by outlining the process into steps that can be documented and communicated to the public. This Plan can be updated as resources change including: weighting factors, pavement rehabilitation strategies, availability of funding

Scope of Services

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

Task A – Pavement Management Assessment

This task details the activities related to the pavement management assessment. During this task, the CONSULTANT will:

- Conduct a kickoff meeting with the CITY to review the existing inventory or mapping of the City's street network, review the specific information that will be collected, and discuss the timeline for data collection.
- Incorporate comments from CITY into the pavement management assessment plan. (Proposed budget, priority for maintenance, attitudes towards different techniques, etc. This plan will become the basis of the report. The plan outlines the work that will be done. The report will present the results and recommendations.)
- Verify all streets within the City's network.
- Retain the services of a company that specializes in the condition assessment of roadways using automated data collection and Laser Road Surface technology to conduct a pavement condition survey of each street to assist in the development a pavement condition rating.
 - Optional Service: Subsurface strength assessment and analysis collected via deflection testing to integrate with PCI score and support rehabilitation recommendations.
- Prepare a draft pavement assessment report and 5-Year Pavement Management Plan.
- Conduct review meeting and incorporate comments from CITY into the pavement management report and 5-Year Pavement Management Plan.
- Prepare a final pavement assessment report and 5-Year Pavement Management Plan to recommend the most effective allocation of limited resources and define projects that will provide the most benefit to the City.

Deliverables

The deliverables for the pavement management assessment will include:

- Draft and final Pavement Management Reports documenting project activities, results, and recommendations based on Key West's constraints and local conditions. The final report will include the following:
 - Network inventory (excluding private streets)
 - Present condition report, including distress factors
 - Operating parameters report and unit prices, including estimated prices for rehabilitation strategies
 - Recommended pavement rehabilitation strategies
 - Collected and derived data shall be delivered in Excel format

- GIS overlay allowing user defined data to “color code” streets. Data fields will be discussed and determined with the City during development of the assessment plan.
- Electronic copy of kick off meeting minutes and draft report review meeting minutes
- Two (2) hardcopies and two (2) electronic copies of the draft report will be provided under this task
- Four (4) hardcopies and four (4) electronic copies of the final report will be provided under this task

Assumptions

The scope and fee for this Task Order are based on the following assumptions:

- Key West roadways included in this Task Order are City-owned streets, with the addition of College Road on Stock Island. State and County Owned Roads are not included in this scope
- Condition assessment of right of way asset surveys, and reporting for additional roadway will be considered as an Additional Service
- The kick off meeting and draft report review meetings are assumed to take place in Key West with one (1) CONSULTANT's staff attending. Other staff may attend via conference call

Obligations of the CITY

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

- A map illustrating the street network and indicating the streets that are owned by the City in GIS format.
- Prompt review and comment on all deliverables (within 10 working days of receipt).
- Access to any required facilities.
- Attendance of key personnel at meeting as requested.
- Payment of all permit application fees (if required).
- Provide recent bid data to support estimated construction costs
- Provide available construction plans to document timeline of recent pavement rehabilitation
- Provide list of programmed/funded pavement rehabilitation projects within 5-years

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 the following:

- Provide training to CITY staff to update pavement spreadsheet and GIS

- Pavement condition or right of way asset surveys of State or County owned roads.
- Databases and reports regarding curb and gutter, sidewalks, ADA ramps, or street catch basins.
- Databases and reports regarding traffic signage, pavement marking, and traffic signals.
- Measure retro reflectivity levels of traffic signs
- Other related work as requested.

Compensation

The estimated compensation for TASK ORDER 4-19 ENG, is shown on Attachment A, entitled TASK ORDER 4-19 ENG, COMPENSATION.

Completion Dates

The estimated time of completion for TASK ORDER 4-19 ENG is shown in the following table.

Task	Proposed Dates
Conduct kickoff meeting	2-3 weeks after NTP
Pavement condition survey of streets	2-3 months after kickoff meeting
Prepare draft report	1-2 months after receipt of survey data
Prepare final report	2-3 weeks after receiving City's review comments

ATTACHMENT A
TASK ORDER 4-19 ENG, COMPENSATION

Task Order 4-19 PAVEMENT MANAGEMENT AND ASSESSMENT REPORT										
Title	Engineer 5	Engineer 4	Technician 4	Technician 2	Spec Processor	Clerical / Office	Subtask Labor Total	Expenses	Travel	Task/Line Item Subtotal
Rate	\$187.34	\$161.90	\$105.24	\$75.17	\$82.10	\$74.01				
A.1 - Assessment Report										
Kickoff Workshop	8	8				2	\$2,941.94			\$2,941.94
Data Collection/Organization	4	4	8				\$2,238.88			\$2,238.88
Assessment Plan	4	20	12				\$5,250.24			\$5,250.24
Draft 5-Year Pavement Management Plan documentation of the project prioritization process and includes recommendations for 5 Year Pavement Management strategies	2	60		20	12		\$12,577.28	200		\$12,777.28
Draft Report Review Meeting	8	16					\$4,089.12		\$3,000	\$7,089.12
Final Report & 5-Year Pavement Management Plan	8	24		8	4	2	\$6,462.10	200		\$6,662.10
Hours Subtotal	34	132	20	28	16	4	234	---	---	--
Cost Subtotal	\$ 6,369.56	\$ 21,370.80	\$ 2,104.80	\$ 2,104.76	\$ 1,313.60	\$ 296.04	\$ 33,559.56	\$ 400.00	\$ 3,000.00	\$36,959.56
A.2 - Third Party Condition Assessment Data Collection										
Develop scope for sub performance	4	8	2			2	\$2,403.06			\$2,403.06
Subcontract - Task Order 1: Pavement Data Collection & Report	8	12	8			2	\$4,431.46	\$55,000		
Hours Subtotal	12	20	10	0	0	4	46	---	---	--
Cost Subtotal	\$ 2,248.08	\$ 3,238.00	\$ 1,052.40	\$ -	\$ -	\$ 296.04	\$ 6,834.52	\$ 55,000	\$ -	\$61,834.52
Total Hours by Per Diem Rate	46	152	30	28	16	8				
Total Fee Estimate by Per Diem Rate	\$ 8,617.64	\$ 24,608.80	\$ 3,157.20	\$ 2,104.76	\$ 1,313.60	\$ 592.08				
									TO Total Labor	\$40,394.08
									TO Subconsultant/Expenses	\$58,400.00
									TO 3-18 Contract Total	\$98,794.08