



THE CITY OF KEY WEST

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MEMORANDUM

EXECUTIVE SUMMARY

TO: Jim Scholl, City Manager
E. David Fernandez, Asst. City Manager - Operations

FROM: Jay Gewin, Utilities Manager

DATE: November 3, 2010

RE: **Approval of a Task Order 2-11-STM from CH2M Hill in the Amount of \$398,000 for Conducting a Stormwater Master Plan for the City of Key West, Including an Inventory of the City's Existing Utility Infrastructure.**

ACTION STATEMENT:

This resolution will approve task order 2-11-STM from CH2M Hill in the amount of \$398,000.00 to conduct a citywide Stormwater Master Plan. It will also include an inventory of the City's existing utility infrastructure.

The agreement will be executed pursuant to F.S. 287.055 (CCNA), City Code 2-841, and the City's contract with CH2M Hill approved by Resolution # 07-331 and extended and amended through Resolution 10-287.

BACKGROUND:

The City of Key West has conducted planning and designs for their stormwater infrastructure over a number of years. A 1994 Stormwater Runoff Study by Kissinger, Campo, and Associates (KCA) included a Stormwater Utility Plan that recommended using Key West's unique hydrogeologic conditions to dispose of stormwater through drainage wells. The City also created its own stormwater long-range plan back in 2001.

In 2003, the Florida Keys National Marine Sanctuary Water Quality Program Steering Committee approved the Key West Stormwater Plan by resolution. In 2003 and 2006, Perez Engineering and Development and Parsons Water and Infrastructure, Inc. performed design and modeling for 60 potential gravity well locations. Camp, Dresser, & McKee and CH2M Hill have also provided the City with stormwater modeling at various locations since 2003.

Key to the Caribbean – Average yearly temperature 77° F.

The City's approach to stormwater management has therefore been based on a series of studies, modeling, best management practices, and intensive construction of stormwater improvement devices. While these measures have been successful, additional work remains and the city faces years of further improvements. While the program is based on sound foundations, it is time to advance our stormwater utility through updated master planning efforts using current technologies.

PURPOSE AND JUSTIFICATION

The Stormwater Master Plan will help us prioritize our future capital project schedule, and help us determine what new infrastructure can best mitigate stormwater issues in the most cost-effective way. The other key component will be to inventory the City's existing utility infrastructure providing us with Geographic Information System (GIS) data and mapping.

The scope of work within the task order includes the following:

- *Information Gathering* – This initially involves an analysis of the City's record drawings for sewer and stormwater projects. It will then move to field inspections of our existing infrastructure using Global Positioning System (GPS) data, which will include intersections throughout much of the City. Existing information available in CADD drawings, as-built record drawings, and field inventories will be loaded into a GIS database. The consultant will verify the information and elevations on our maps and record drawings. An end result will be a detailed computerized mapping of much of the City' underground sewer and stormwater infrastructure. This is the most time-consuming task within the project.
- *Hydrologic/Hydraulic Simulation* – This task will provide simulated flooding citywide for rain events of varying intensity, incorporating our existing stormwater infrastructure and outfalls.
- *Alternative Analysis* – This will identify up to 20 capital projects that would best address City stormwater concerns. It will also include an estimated construction budget for each.
- *Planning Report Preparation* – CH2M Hill will consolidate all of the aforementioned information into a report for the City to utilize.

The report generated from this task order will be the key document the stormwater utility will use in creating its future capital project budgets.

The City or OMI does not have the staff available with the technical expertise required to perform this work independently. Staff has reviewed this submittal and found it consistent with the new hourly rates established in the City's contract extension with CH2M Hill.

Further, Staff does not feel that the hours that will be billed under this task order are disproportionately allotted to higher-wage management staff. In fact, the Principal Project Manager, Principal Technologist, and Senior Technologist combined only account for approximately 18% of the hours allotted in this task order.

The task order also includes CH2M Hill staff's trips to Key West over the course of the project. City staff feels that this number of trips, and the associated costs, are reasonable to assure that the consultant staff has sufficient oversight for the completion of the project.

OPTIONS / ADVANTAGES / DISADVANTAGES:

1. The City Commission can award the task order to CH2M Hill and proceed with the Stormwater Master Plan and GIS utility project. This will provide the City with a new detailed record of our sewer and stormwater infrastructure using current technology. It will also provide us with stormwater information which will be very useful for both planning future capital projects, and in modeling severe rain events which can assist our emergency operations.
2. The City Commission can decline the task order from CH2M Hill. This option is not recommended by Staff, as the City will not be afforded the data that could be key in future capital planning. It will also leave us without an updated consolidated GIS inventory of our existing utility infrastructure for both sewer and stormwater.

FINANCIAL IMPACT:

The City has received a \$100,000 grant from the South Florida Water Management District to assist with the funding of this project. Staff was not aware of the grant when the FY 2011 budget was finalized; therefore we have already processed a budget amendment to include this newly found funding. It was approved at the November 3, 2010 City Commission meeting. The grant requires a 50% match, which we will easily meet.

The Stormwater Master Plan/Utility GIS Project was included in the FY 2011 budgets of both the stormwater and the sewer utilities. The project cost is budgeted in expense account 402-3802-538-31-00 and 401-3501-535-31-00.

RECOMMENDATION:

Staff recommends that the City Commission select option 1, approving task order 2-11-STM from CH2M Hill in the amount of \$398,000 for a Stormwater Master Plan and inventory of the City's existing utility infrastructure.