

RESOLUTION NO. 13-316

A RESOLUTION OF THE CITY COMMISSION OF THE CITY OF KEY WEST, FLORIDA APPROVING TASK ORDER NO. 3-13-SWR FROM CH2M HILL ENGINEERING, INC. IN AN AMOUNT NOT TO EXCEED \$151,988.00 FOR ENGINEERING SERVICES FOR THE DESIGN AND BID PHASE FOR CONCRETE REPAIRS AT THE RICHARD A. HEYMAN ENVIRONMENTAL PROTECTION FACILITY; PROVIDING FOR AN EFFECTIVE DATE

WHEREAS, in Resolution No. 12-280, the City Commission approved a contract with CH2M Hill, Inc. for General Engineering Services; and

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COMMISSION OF THE CITY OF KEY WEST, FLORIDA, AS FOLLOWS:

Section 1: That Task Order No. 3-13-SWR for CH2M Hill Engineering, Inc. for engineering services for the design and bid phase for concrete repairs at the Richard A. Heyman Environmental Protection Facility is hereby approved in an amount not to exceed \$151,988.00.

Section 2: That funds for this project are budgeted in FY 2014, line item 401-3503-535-65/SE 1401.

Section 3: That this Resolution shall go into effect immediately upon its passage and adoption and authentication by the signature of the presiding officer and the Clerk of the Commission.

Passed and adopted by the City Commission at a meeting held this 3rd day of December, 2013.


Authenticated by the presiding officer and Clerk of the Commission on December 4, 2013.

Filed with the Clerk December 4, 2013.

Mayor Craig Cates	<u>Yes</u>
Vice Mayor Mark Rossi	<u>Absent</u>
Commissioner Teri Johnston	<u>Yes</u>
Commissioner Clayton Lopez	<u>Yes</u>
Commissioner Billy Wardlow	<u>Yes</u>
Commissioner Jimmy Weekley	<u>Yes</u>
Commissioner Tony Yaniz	<u>Yes</u>

  
CRAIG CATES, MAYOR

ATTEST:

  
CHERYL SMITH, CITY CLERK



THE CITY OF KEY WEST

Post Office Box 1409 Key West, FL 33041-1409 (305) 809-3700

## EXECUTIVE SUMMARY

**TO:** Bogdan Vitas, City Manager  
E. David Fernandez, Asst. City Manager - Operations

**FROM:** Jay Gewin, Utilities Manager

**DATE:** November 4, 2013

**RE:** Approval of a Task Order 3-13-SWR from CH2M Hill in the Amount of \$151,988 for Engineering Services for the Design and Bid Phase Services for the Concrete Repairs at the Richard A. Heyman Environmental Protection Facility

### ACTION STATEMENT:

This resolution will approve task order 3-13-SWR from CH2M Hill in the amount of \$151,988 for engineering services for the design and bid phase services for the concrete repairs at the Richard A. Heyman Environmental Protection Facility. (Wastewater Treatment Plant)

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 # 12-280.

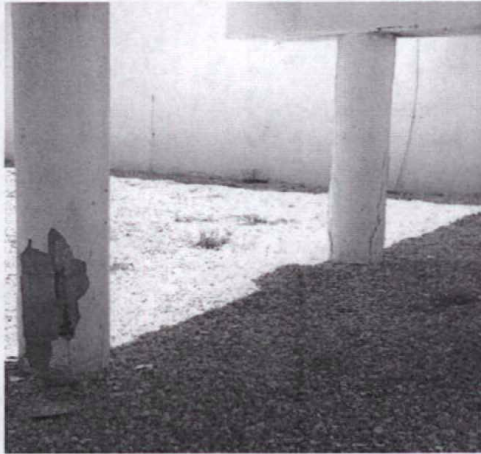
### BACKGROUND:

The City of Key West's Wastewater Treatment Plant has several areas of the facility that are in need of concrete repair. These include areas of the solids building, the utilidor, the clarifiers, and areas of the large aeration basins that need to be re-sealed. It is the City's intent to address these areas of concern before they worsen.

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

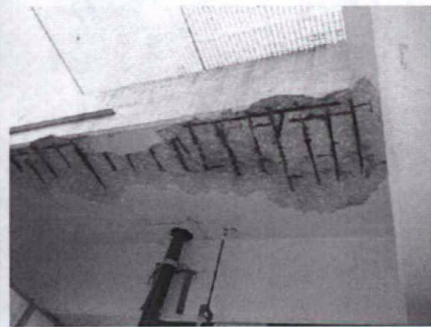
MEMORANDUM





#### PURPOSE AND JUSTIFICATION:

CH2M Hill has successfully designed several projects at both the City's wastewater treatment plant, and our sewer collection system. They have excellent knowledge of the City's sewer system, and of the unique construction environment in Key West. They have local staff that is very responsive to the needs of the City.



This task order includes the following components:

- a) Preliminary Design
  - Comprehensive field inspection of entire facility
  - Areas to be repaired to be identified and given severity scale rating
  - Repair options will be proposed for each area.

- Draft review meeting with City Staff and OMI.
- b) Detailed Design Documents for Bid
  - Preparation of technical design specifications and drawings
  - Preparation of contract documents
  - Preliminary cost estimate
  - 90% design review with Staff and OMI
  - Preparation of full bid documents
- c) Bid Phase Services
  - Conduct pre-bid meeting
  - Prepare addenda as needed
  - Reference check of bid respondents
  - Review of bids to ensure responsiveness

This project will be combined with the bid for the concrete piling repair at the nearby Fleming Key Bridge. Doing so will help the City save on mobilization costs.

The City does not have the staff available with the time and technical expertise required to perform this design work independently. Staff has reviewed this task order and found it consistent with the hourly rates established in the City's contract with CH2M Hill.

Further, City 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 accounts for approximately 9.2% 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 concrete repairs at the Wastewater Treatment Plant on a timely basis. This firm has successful experience working with the City on other projects of a similar technical nature, and has very capable staff to ensure successful project completion. This option is recommended by City Staff, as the neither City nor OMI have the personnel available with the ability to perform the scope of work included in this task order.
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 able to utilize the engineering services that are essential in completing the project. City Staff believes that CH2M Hill is the firm that can best manage the concrete repair project of the engineering firms we have under contract.



**FINANCIAL IMPACT:**

The City Commission has budgeted \$1,500,000 for FY 2014 for the concrete repair project at the Richard A Heyman Environmental Protection Facility. The task order will be funded by budget line item 401-3503-535-65/SE 1401.

**RECOMMENDATION:**

Staff recommends that the City Commission select option 1, approving task order 3-13-SWR from CH2M Hill in the amount of \$151,988 for engineering services for the design and bid phase services for the concrete repairs at the WWTP.

# CH2MHILL TRANSMITTAL

**To:** City of Key West  
3140 Flagler Ave.  
Key West, FL 33040

**From:** Sean McCoy  
6410 5<sup>TH</sup> Street  
Key West, FL 33040

**Attn:** Jay Gewin

**Date:** November 14, 2013

**Re:** Signed Task Order for City Approval for Engineering Services for Design and Bid Phase Services for the Concrete Repairs at Richard A. Heyman EPF

**We Are Sending You:**

Method of shipment: Hand Delivery

☒ Attached

Under separate cover via

Shop Drawings

☒

Documents

Tracings

Prints

Specifications

Catalogs

Copy of letter

Other:

Quantity	Description
----------	-------------

2 Copies Signed Task Order 3-13 SWR

If the material received is not as listed, please notify us at once.

Remarks:

Please return one signed copy for our records

Copy To: File



**TASK ORDER 3-13 SWR**

**ENGINEERING SERVICES FOR THE DESIGN AND BID PHASE SERVICES FOR THE  
CONCRETE REPAIRS AT RICHARD A. HEYMAN EPF**

This TASK ORDER 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 19, 2012 which is incorporated herein by this reference.

A. SCOPE OF SERVICES

Specific services that the CONSULTANT agrees to furnish are summarized on the attached statement entitled TASK ORDER 3-13 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.

C. COMPENSATION

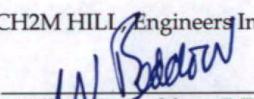
Compensation for the labor portions of TASK ORDER 3-13 SWR, Task A and B will be on a lump sum fee basis as stipulated in Article 5, Paragraph 5.1.1 of the AGREEMENT. Compensation for the labor portions of Tasks C and D and all expenses will be on a Cost Reimbursable-Per Diem basis as stipulated in Article 5, Paragraph 5.1.2 of the AGREEMENT. The estimated compensation is shown on the attached statement entitled TASK ORDER 3-13 SWR COMPENSATION.

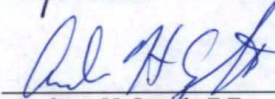
D. ACCEPTANCE

By signature, the parties each accept the provisions of this TASK ORDER 3-13 SWR, and authorize the CONSULTANT 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, Engineers Inc.

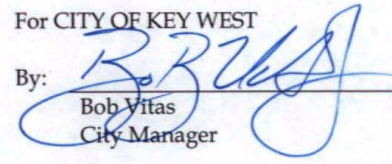
By:

  
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 4<sup>th</sup> day of December, 2013.

ATTEST





## **TASK ORDER 3-13 SWR**

### **ENGINEERING SERVICES FOR THE DESIGN AND BID PHASE SERVICES FOR THE CONCRETE REPAIRS AT THE RICHARD A. HEYMAN EPF**

#### **SCOPE OF SERVICES**

##### **Project Description**

In 2010, during the design and construction of the Headworks Modifications for the Richard A. Heyman Environmental Protection Facility (WWTP) a preliminary field inspection was conducted of the entire facility to identify areas where the concrete had failed and/or was failing. This inspection identified areas that needed concrete repairs to prolong the life of the facility. Since 2010 additional areas within the WWTP have begun fail, with one area in particular, severe enough to close the area due to the potential for overhead injuries from falling concrete.

The CITY has requested the CONSULTANT prepare a scope of services to conduct inspections to identify all areas of concrete that require repair at the WWTP. To classify these areas as described below, and to design, and provide bid phase services for the repair of all damaged concrete within the WWTP facility.

This Task Order 3-13 SWR includes the inspection, design, and bid phase services for the concrete repairs at the WWTP. Additionally, drawings, permitting and specifications for the repair of Piling Number 6, and the Pile Cap repairs on the Fleming Key Bridge will be incorporated into the bid documents for this work under a single construction contract. Drawings, specifications and permitting for the Fleming Key Bridge repairs are being prepared under current Task Order 4-12 SWR.

##### **Purpose**

The CITY has requested that the CONSULTANT provide engineering services for the inspection, design, and bid phase services for the concrete repairs at the Richard A. Heyman Environmental Protection Facility.

Specific activities to be performed under this Task Order include:

- Prepare a Preliminary Design Memorandum (PDM) for the concrete repairs at the Richard A. Heyman Environmental Protection Facility. Included in the PDM will be a condition assessment of the aeration basins expansion joints.
- Provide detailed design with submission of 90% documents for review and provide bid documents for a single construction contract.
- Bid Phase Services

## Scope of Services

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

### Task A – Preliminary Design Memorandum for WWTP Concrete Repairs

CONSULTANT shall meet with CITY at a kickoff meeting in Key West, perform an investigation of the WWTP to determine the locations and extent of the concrete repairs and obtain photographs. The CONSULTANT will prepare a Preliminary Design Memorandum (PDM) for the WWTP concrete repairs that will include the following work activities:

- The CONSULTANT shall conduct a field inspection of the following structures/areas at the WWTP to identify and classify any area requiring concrete repair(s):
  - Inside and outside of each aeration basin, including expansion joint sealant condition
  - Inside and topside of the utility corridor
  - Underneath of walkway at clarifier #1
  - Outside of clarifiers
  - Inside and outside of chlorine contact basins #1 & #2
  - Inside of the flow channel from the aeration basins to the clarifiers
  - Interior columns and walls in the operations Building Pump Room level and all columns throughout the building
  - Inside and outside of the Chlorine Building
  - Outside of the sludge storage tanks
  - Entire Incinerator Building
  - Monitoring well & injection wells pads
  - Standby generator platform
  - Columns of channel to clarifiers
  - Headworks grit loading drive through area
  - Drive through area for sludge
  - Blower pads
  - Filter and UV structures
  - All building roofs: structural components
- The CONSULTANT shall schedule two site visits to allow plant operations to remove half of the plant from operation during each visit for inspection. The inspections shall be



coordinated and conducted with plant personnel to minimize disturbances to operations.

- The CONSULTANT shall locate areas to be repaired, and photograph each location. Areas to be repaired will be categorized by severity using a 1, 2, and 3 grading scale. Category 1 repairs will be the most severely deteriorated areas representing spalling greater than ½ inch in depth, visible rebar and possible structural integrity issues. Category 2 shall represent areas with spalling less than ½ inch deep, and may or may not have exposed rebar, but will not have structural integrity implications. Category 3 areas will consist of minor cracking, and will mainly consist of cosmetic type repairs.
- The CONSULTANT will prepare comprehensive repair options for each category and link the proposed options with each repair location.
- CONSULTANT will attend a draft review meeting with the City to obtain comments and incorporate the comments into the final PDM. One CONSULTANT Staff will attend meeting all others will attend via conference call.
- Preliminary probable construction cost estimate.

#### **Deliverables**

- Two (2) copies of kick-off meeting minutes
- Four (4) copies of the draft PDM for review and approval prior to start of detailed design
- Four (4) copies of Final PDM after incorporation of review comments
- Four (4) copies of the Preliminary Construction Cost Estimate

#### **Task B - Detailed Design**

This task entails activities related to the detailed design of the WWTP concrete repairs.

The design will be completed based upon the Preliminary Design Memorandum recommendations. Final contract drawings and specifications will be prepared for a single construction contract for the WWTP Concrete Repairs and the repair of Piling Number 6, and the Pile Cap repairs on the Fleming Key Bridge. 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 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.
- Incorporate Drawings and Specifications for the Fleming Key Bridge Pile number 6 and Pile Cap repairs into one set of Bid Documents.
- Conduct 90% review meeting and incorporate review comments from CITY into the Bid Documents. Up to two CONSULTANT staff will attend meeting all others will attend via conference call.
- 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– Bid Phase Services**

Bidding services are based on a Bid Period of 30 days. The CONSULTANT 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 CONSULTANT.
- 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 CONSULTANT will prepare an award letter for the CITY recommending the successful bidder.
- After award, the CONSULTANT 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 CONSULTANT for compliance review of the bidding requirements. After the CONSULTANT 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, CONSULTANT, and Contractor during construction.

Bid phase services will be considered complete upon the CONSULTANT'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 2013.
- Bid advertisement will occur in the first quarter of calendar year 2014.
- The Kick-off meeting will be held in Key West and scheduled with the first site visit to the WWTP.
- 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.
- Aeration basin expansion joint repairs will consist of typical backing rod, sealant, and joint tape. More extensive joint sealant repairs may constitute a change in scope.
- 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 CONSULTANT's master specifications will be used as the basis for all technical specification sections in Divisions 1 through 49. The CONSULTANT's master specifications incorporating CITY requirements will be used for General Conditions, Supplemental Conditions, and other front end documents.
- No Confined Space Entries will be required for concrete inspections
- No permit(s) will be required for the concrete repairs at the WWTP. CONTRACTOR will be required to apply for and obtain Building Permits from the CITY.
- Legal, easement, or plat surveys will not be required.
- 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

## Additional Services

The CONSULTANT 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 3-13 SWR is shown on Attachment "A" entitled TASK ORDER 3-13 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 for the Concrete Repairs at the Richard A. Heyman Environmental Protection Facility	8 weeks after NTP
90% Design Documents: Concrete repairs and Fleming Key Bridge	8 weeks after receipt of Preliminary Design Memo review comments for both projects
Bid Documents	2 weeks after receipt of 90% document review comments
Bid Phase Services	TBD



**Attachment A**  
TASK ORDER 3-13 SWR COMPENSATION

**Task Order 3-13 SWR**

Engineering Services for the Design and Bid Phase Services for the Concrete Repairs at  
the Richard A. Heyman EPF COMPENSATION

Task	Hours	Labor	Expenses	Total Cost
Task A - Preliminary Design	380	\$55,202	\$9,400	\$64,602
Task B - Design	506	\$67,462	\$2,600	\$70,062
Task C - Bid Phase Services	132	\$16,824	\$500	\$17,324
Total	1018	\$139,488	\$12,500	\$151,988



**COMPENSATION BREAKDOWN**

**Task Order 3-13 SWR**

**Engineering Services for the Design and Bid Phase Services**

**for the Concrete Repairs at Richard A. Heyman EPF**

<b>TASK NO.</b>	<b>TASK DESCRIPTION</b>	<b>HOURLY RATE</b>	<b>TOTAL HOURS</b>	<b>LABOR</b>	<b>EXPENSES</b>	<b>TOTAL COST</b>
<b>A Preliminary Design</b>						
	Principal Project Manager/QC	\$ 182.00	32	\$5,824		\$5,824
	Sr. Technologist/Project Manager	\$ 154.00	42	\$6,468		\$6,468
	Design Manager	\$ 167.00	80	\$13,360		\$13,360
	Sr. Structural Engineer	\$ 154.00	116	\$17,864		\$17,864
	Cost Estimator	\$ 132.00	16	\$2,112		\$2,112
	Port Structural Engineer	\$ 132.00	16	\$2,112		\$2,112
	Lead Tech	\$ 118.00	16	\$1,888		\$1,888
	Design Tech	\$ 111.00	34	\$3,774		\$3,774
	Specification Processor	\$ 87.00	0	\$0		\$0
	Project Assistant	\$ 66.00	16	\$1,056		\$1,056
	Clerical	\$ 62.00	12	\$744		\$744
	TRAVEL				\$9,000	\$9,000
	PRINTING/REPROGRAPHICS				\$400	\$400
<b>Preliminary Design Subtotal</b>			<b>380</b>	<b>\$55,202</b>	<b>\$9,400</b>	<b>\$64,602</b>
<b>B Detailed Design</b>						
	Principal Project Manager/QC	\$ 182.00	46	\$8,372		\$8,372
	Sr. Technologist/Project Manager	\$ 154.00	22	\$3,388		\$3,388
	Design Manager	\$ 167.00	64	\$10,688		\$10,688
	Sr. Structural Engineer	\$ 154.00	124	\$19,096		\$19,096
	Cost Estimator	\$ 132.00	16	\$2,112		\$2,112
	Port Structural Engineer	\$ 132.00	32	\$4,224		\$4,224
	Lead Tech	\$ 118.00	24	\$2,832		\$2,832
	Design Tech	\$ 111.00	90	\$9,990		\$9,990
	Specification Processor	\$ 87.00	48	\$4,176		\$4,176
	Project Assistant	\$ 66.00	26	\$1,716		\$1,716
	Clerical	\$ 62.00	14	\$868		\$868
	TRAVEL				\$2,000	\$2,000
	PRINTING/REPROGRAPHICS				\$600	\$600
<b>Detailed Design Subtotal</b>			<b>506</b>	<b>\$67,462</b>	<b>\$2,600</b>	<b>\$70,062</b>
<b>C Bid Phase Services</b>						
	Principal Project Manager/QC	\$ 182.00	16	\$2,912		\$2,912
	Sr. Technologist/Project Manager	\$ 154.00	32	\$4,928		\$4,928
	Design Manager	\$ 167.00	8	\$1,336		\$1,336
	Sr. Structural Engineer	\$ 154.00	16	\$2,464		\$2,464
	Cost Estimator	\$ 132.00	0	\$0		\$0
	Lead Tech	\$ 118.00	4	\$472		\$472
	Design Tech	\$ 111.00	16	\$1,776		\$1,776
	Specification Processor	\$ 87.00	16	\$1,392		\$1,392
	Project Assistant	\$ 66.00	14	\$924		\$924
	Clerical	\$ 62.00	10	\$620		\$620
	TRAVEL				\$0	\$0
	PRINTING/REPROGRAPHICS				\$500	\$500
<b>Bid Phase Services Subtotal</b>			<b>132</b>	<b>\$16,824</b>	<b>\$500</b>	<b>\$17,324</b>
<b>PROJECT TOTALS</b>						
<b>TOTAL HOURS</b>			<b>1,018</b>			
<b>TOTAL FEE ESTIMATE</b>				<b>\$139,488</b>	<b>\$12,500</b>	<b>\$151,988</b>