

MCKIM & CREED ENGINEERS

ST113299

MARSHALL STREET WRF

INFLUENT PUMPING STATION

EMERGENCY

**Engineering Services
To Aid the Construction of
A Temporary Pumping System**

\$199,000.00

Deliver to:
Water Pollution Control
City of Clearwater
1605 Harbor Drive
Clearwater, FL 33755-



Page 1 of 1

Purchasing Division
P.O. Box 4748
Clearwater, Florida 33758-4748
Florida Sales Tax Exemption Certificate No. 85-8012740095C-1
Federal Excise Tax Exemption No. 59-8000-289

Supplier:
MCKIM & CREED ENGINEERS
1365 HAMLET AVE
CLEARWATER, FL 33756-

PURCHASE ORDER ST113299

Required Date 05-October-2016

MAIL ORIGINAL INVOICE TO:
CITY OF CLEARWATER - ACCTS PAYABLE
100 S. MYRTLE AVE.
P.O. BOX 4748
CLEARWATER, FL 33756-5520

Direct all communications on this order to: DAVE PORTER 727-562-4960X7248					
Terms: Use for licensed contractors			F.O.B.: DEST		
Line	Quantity	Unit	Description	Unit Price	Total Price
1	199,000.00	DL	M&C 009920231 Marshall Street Influent Pump Station Emergency Repairs. M&C Project Number: 009920231 Fees not to exceed \$192,000.00 Additional \$7,000.00 for any unforeseen costs	\$1.00	\$199,000.00
DISCOUNTS: For any discount, time will be computed from date of satisfactory delivery of all items or the date a correct invoice is received, whichever is later.				Total Amount \$199,000.00	

This purchase order is subject to the Standard Terms and Conditions posted at:
www.myclearwater.com/gov/depts/finance/index.asp

Alyce L. Bengé
Alyce L. Bengé, CPPO
Purchasing Manager

Kunis, Ruby

From: Reichert, Flo
Sent: Monday, January 30, 2017 8:16 AM
To: Kunis, Ruby
Subject: McKim & Creed (FW: Marshall St Emergency Repairs WO to City - RGG.docx)

Bill's approval for McKim & Creed for \$199,000.

From: Gardner, Richard
Sent: Wednesday, October 05, 2016 10:57 AM
To: Reichert, Flo
Subject: FW: Marshall St Emergency Repairs WO to City - RGG.docx

Richard Gardner

Office: (727) 562-4960 Ext. 7267
Mobile: (727) 224-7043

From: Horne, William
Sent: Tuesday, October 04, 2016 4:33 PM
To: Porter, David
Cc: Bengé, Alyce; Silverboard, Jill; Gardner, Richard; O'Brien, Kelly; Fahey, Robert
Subject: RE: Marshall St Emergency Repairs WO to City - RGG.docx

Approved.....Bill

Bill Horne, ICMA-Credentialed Manager
City Manager
City of Clearwater
(727) 562-4046
(727) 224-7088
william.horne@myclearwater.com



CLEARWATER
BRIGHT AND BEAUTIFUL • BAY TO BEACH

From: Porter, David
Sent: Tuesday, October 4, 2016 10:31 AM
To: Horne, William <William.Horne@myclearwater.com>
Cc: Bengé, Alyce <alyce.benge@MyClearwater.com>; Silverboard, Jill <jill.silverboard@myclearwater.com>; Gardner, Richard <Richard.Gardner@MyClearwater.com>; O'Brien, Kelly <Kelly.Obrien@myClearwater.com>; Fahey, Robert <Robert.Fahey@myClearwater.com>

Subject: Marshall St Emergency Repairs WO to City - RGG.docx

Importance: High

Bill,

Engineering services are required (and are already on-going) to address the failure of the Marshall Street Influent Lift Station as part of our emergency response. These engineering services are required to address the proper set-up of the long-term temporary pumping system needed to provide pumping service while the permanent station is being evaluated and repaired, the evaluation of the failure and development of the correct fix, the coordination and development of power facilities to serve the temporary facilities and the repair of the permanent power system that also failed, and providing overall engineering hydraulic, mechanical and electrical engineering services needed to allow us to function under the emergency conditions.

Therefore I request your emergency approval of the attached work order (McKm and Creed is one of our EORs) and the issuance of a Purchase Order in the amount of \$199,000. This amount is \$7,000 more than the work order estimate to allow for any unforeseen additional work that may be found to be needed as their work is being completed.

If you have any questions please contact me.

Thanks,

Dave



1365 Hamlet Ave. Clearwater, Fl. 33756 (727) 442-7196

WORK ORDER INITIATION FORM for the CITY OF CLEARWATER

Date: 10/5/2016

M&C Project Number: 009920231

City Project Number: 16-0038-UT

1. PROJECT TITLE:

Marshall Street Influent Pump Station Emergency Repairs

2. SCOPE OF SERVICES:

The City of Clearwater has experienced a catastrophic failure of their influent pumping system affecting the entire facility. The City has asked McKim & Creed to aid in the construction of a temporary pumping system and to provide design engineering services for the electrical and controls repair and/or replacement of the influent pump station and other effected systems.

TEMPORARY EMERGENCY PUMPING SYSTEM DESIGN

Task 1.1 – Review of Existing System Requirements for Bypass Pumping

McKim & Creed will review of the influent pumping requirements and the ability to install a temporary bypass pumping and screening system in order to bypass the influent station. This will allow for the inspection of damage and subsequent cleaning of the dry pit area housing the existing pumps and electrical gear. Review will include assistance in the temporary pump selection and review of a temporary pumping plan and piping requirements based on flows provided.

Task 1.2 – Temporary Electrical & Controls System

McKim & Creed is to provide guidance and design of a temporary electrical and control system to provide power to the temporary pumping system and sections of the plant affected by the loss of primary power from the influent pump station. Items include coordination with temporary pump system provider, temporary switchgear provider, electrical contractor and Duke Energy. The City will purchase all power wiring between equipment. McKim & Creed will provide assistance in the form of sizing of conductors and switchgear and estimating quantities for this effort. For control McKim & Creed will give guidance and design for controls to provide status to the SCADA system for pump system status.

PRE-DESIGN EVALUATION

Task 2.1 – Data collection

This task consists of the gathering and reviewing of all data relative to the influent pumping system. As the station has gone through modifications over the years, understanding what those modifications were and how they may have affected the stations pumping ability will be a part of this process. In addition, reviewing records of maintenance and discussions with operations and maintenance personnel will be a part of this effort.

Task 2.2 - Electrical Infrastructure Assessment

Provided with this task will be an evaluation of the existing damaged equipment, and their power connections. A review of the existing system will be done for compliance with Class 1 reliability and NFPA 820 standards, which includes ventilation and fire protection. A Technical Memorandum (TM) will be performed for this Task along with recommendations for the future reliability of the influent pump station.

Task 2.3 – Existing Controls Assessment

This task will assess the condition of the existing control system and the adherence to Class 1 reliability. Recommendations for the future reliability of the control system will be part of the TM of 1.2. In addition, a review of the pump stations SCADA statuses and alarms will be a part of this investigation. Trending and alarm history time lines before and during the failure event will also be reviewed.

Task 2.4 – Structural Assessment

A structural assessment of the pump station structure, and wetwell including all walkways and stairs will be performed as part of this task. A recommendation of repairs, or replacement to structural members, and application of any coatings to protect structural elements will be included in a technical memorandum specific to this task. Recommendations for Class 1 reliability will also be addressed as part of this memo. Confined space permitting and access control along equipment shall be provided by a sub-contractor hired by McKim & Creed.

Task 2.5 – Mechanical Assessment

A review of the influent pump station mechanical equipment and any repair or replacement options will be addressed in a technical memorandum for this task. Piping, valving, pumping and ancillary equipment will be addressed in this task and recommendation made for repairs or replacement. Class 1 reliability will also be addressed in this memo. In addition, the ventilation system of the drywell, pump motor/electrical room and ground floor areas will be a part of the technical evaluation and recommendations made in the technical memo. Options for redesigning of the pump station wetwell and pumping schemes will be also addressed in the technical memorandum. Input from the Plant Operations will be vital to this effort.

DESIGN PHASE

Design of Pump Station from the Recommendations of Technical Memorandums

This will provide the basis for the Construction Contract Documents. Final Construction Documents and Specifications will be signed and sealed per Florida Statute for the permitting

and bidding phases of the project. Progress review meetings are included at each submittal phase. As this is a fast track process, because of the time critical nature of this project, it is recommended that three design submittal packages be produced. They will be 60%, 90% and Final Bid construction documents and specifications.

Task 3.1 – 60% Design Drawings and Specifications

Drawings and specifications for review and comment by City officials are provided for this task.

Task 3.1.1 60% Design Review Meeting

14 calendar days from the submittal of the 60% Design documents, a review meeting between the design team and City Officials will occur to address City comments or changes. These outcomes will be incorporated as part of the 90% Design Submittal.

Task 3.2 - 90% Design Drawings and Specifications

Drawings and specifications for review and comment by City officials are provided for this task.

Task 3.2.1 90% Design Review Meeting

14 calendar days from the submittal of the 90% Design documents, a review meeting between the design team and City Officials will occur to address City comments or changes. These outcomes will be incorporated as part of the Final Bid Documents.

Task 3.3 – Final Construction Documents and Specifications for Bidding

Final Signed and Sealed Construction Bid documents to be submitted to the City for advertising to contractors, and in addition, the 100% design documents will be submitted to the Building Dept. for Permitting.

BIDDING SERVICES

Task 4.1- Pre-bid Meeting and Bidding Assistance

McKim & Creed will provide bidding services inclusive of the following items:

- Provide bidding services consisting of Bid ready construction documents.
- Assist the City in a Pre-Bid meeting. The City shall prepare an agenda.
- Provide Contractor design question responses and aid the city in the preparation of addenda. City will issue all addenda.
- Review bids received by the City and provide recommendation of award.
- Prepare conformed construction documents addressing changes made by addendum.

CONSTRUCTION PHASE

Task 5.1- Construction Phase Services

General Project Management Services: The effort included in the Project Management Services is estimated based on the tasks of this Scope of Services. The Project Management effort includes contract administration including contract document interpretation, general correspondence with the City and Contractor, monthly project meetings, budget, schedule management and invoicing.

Quality Assurance / Quality Control (QA/QC): McKim & Creed shall provide QA/QC observations and reviews at key points in the project. For this service McKim & Creed will utilize the service of senior and/or experienced professionals to perform the QA/QC reviews and observations.

Pre-Construction Meeting: Prior to the start of the construction, McKim & Creed shall arrange a meeting to include the contractor, engineer and CITY to review scope and other items that may require information and/or guidance from the CITY. The City shall prepare an agenda. Proposed items for discussion at the meeting are:

- Influent Pump Station Construction
- Contact list for the project.
- Project Overview
- Project Construction Meetings
- Submittal Format, Tracking and Schedule
- Overall Construction Schedule
- Shutdown Procedures and Notifications
- RFI Procedures
- Payment and Requisition Procedures
- Discussion of other job specific details relative to the project.
- Discussion of the required project permits.
- Safety Discussion and Emergency Procedures

Submittals: McKim & Creed will track and review Contractor submittals per the Contract Documents and provide submittal review comments within 14 days as required. Submittals and submittals logs, as well as comments will be kept for record and available to the City if requested. Review is to be limited to general conformance with the design concept of the project and compliance with the information given in the Contract Documents. Such reviews or other action shall not extend to the approval of the means, methods, techniques, sequences, or procedures of construction or safety program of the Contractor. Under this Task, the review of only one resubmittal of any initial submittal shall be included. Any review beyond one resubmittal will be included for compensation. It is anticipated that 45 shop drawings will be submitted for this project.

Schedule Review: McKim & Creed will review and make recommendations to the CITY on the acceptability of the Contractor's construction schedule and to review construction phasing and scheduled shutdowns. McKim & Creed will provide the CITY with a monthly update on schedule progress.

Request for Information (RFI): Requests for information from the Contractor will be tracked and initially be reviewed by McKim & Creed, and if needed forwarded to the CITY for additional information. McKim & Creed will provide responses to the Contractor and create a log for future information and make available for the CITY. Initial RFI's limit shall be 35. Additional RFI's will be considered out of scope and if requested by the CITY to continue with RFI evaluation, additional services will be negotiated with the CITY.

Change Order Request (COR): McKim & Creed will review and comment on Change Order Requests from the Contractor based on the Contract Documents. McKim & Creed will also provide review of pricing and content, as well as providing a recommendation of approval or disapproval to the CITY. A log of Change Order requests will be kept for review by the CITY.

Record Drawings: The Contractor will be responsible for developing the As-Built Drawings in accordance with Specification 01782. McKim & Creed will review and provide comments on the As-Built Drawings supplied by the Contractor prior to their submittal to the City. The final Record Drawings issued by the EOR in conjunction with the Contractor will be stamped as Record Drawings by McKim & Creed. McKim & Creed will provide to the City a signed and sealed letter stating the completed work observed by their staff conforms to the contract documents.

Task 5.2 - Construction Observation Services:

Construction Site Visits/Progress Meetings: McKim & Creed will provide limited onsite construction observation. The observation services will average 4 hours per week for the 24 week active construction duration of both projects. If additional onsite services are required, McKim & Creed will negotiate with the City for additional services. McKim & Creed shall issue a recommendation of substantial completion for the purpose of establishing the starting date for specific equipment warranties, and to establish the date that the CITY shall assume responsibility and the cost of operating such equipment.

Contractor Pay Request Review: McKim & Creed, within ten (10) days after receipt of each application for payment from the Contractor, provide written notice to the CITY recommending payment to the Contractor, or return the request to the Contractor providing written notice of McKim & Creed's reason for returning the pay request. As part of the review process, McKim & Creed shall review the progress of record drawings and that appropriate releases of liens are submitted with the pay request. Upon receipt of the Contractor's request for final payment, McKim & Creed shall observe and, if acceptable, submit to the CITY a recommendation as to acceptance of the work and as to the final payment request of the Contractor.

Substantial and Final Walkthrough: McKim & Creed shall conduct a substantial site walkthrough for substantial completion, followed by a final walkthrough. The substantial walkthrough shall be subsequent to the Contractor's preparation of a punch list. McKim & Creed shall modify the list accordingly pending the results of the substantial walkthrough. Subsequent to the completion of all punch list items as notified by the Contractor, McKim & Creed shall complete the final walkthrough. Subsequent to an acceptable final walkthrough, McKim & Creed shall recommend, in writing, final payment to the Contractor. .

Task 5.3 – Start Up Services:

Startup Services: McKim & Creed will provide startup services for the coordination of the Influent Pump Station and its connected equipment. McKim & Creed will provide limited startup assistance to coordinate the manufacturers' training and startup assistance to the CITY's staff. A start-up plan for the equipment attached to Influent Pump Station will be prepared by the Contractor for submittal to the Engineer for review and approval before actual startup.

ASSUMPTIONS:

- Confined space access will be coordinated with City's personnel under the guidance of the McKim & Creed sub-contractor which will handle permit applications, guidance, supervision and all equipment.
- Design assumptions are that all electrical gear will be moved to 1st floor level
- Ventilation to be repaired or replaced,
- VFD's to be housed in air conditioned room.
- Odor Control will be repaired or replaced under a separate contract and coordination will be required for providing electrical service.
- No downstream process changes
- No soils testing

3. PROJECT GOALS:

Provide Technical Memorandum of equipment assessment findings and recommendations.

Provide Electrical and Controls Construction staging of temporary and permanent system

Electrical and Control design and repair alternatives Technical Memo

Provide Updated Design Drawings and Specifications

Five (5) copies of draft Technical Memoranda for Tasks 2.1 through 2.4 and an e-mail copy in PDF format

Five (5) bound, signed and sealed copies of Design drawings and Specifications; e-mail copy in PDF format; one (1) CD-ROM in PDF format

Meeting minutes for kickoff, status and review meetings

4. BUDGET:

{Include a table or an attachment that depicts the total cost per task and/or phase for these engineering services – see Attachment "B".}

This price includes all labor and expenses anticipated to be incurred by McKim & Creed for the completion of these tasks in accordance with Professional Services Method "A" – Cost Times Multiplier Basis, for a fee not to exceed one hundred ninety-two thousand dollars

~~\$192,000.00~~ 192,000 + 7,000 = 199,000

{Include a statement that permits application fees will be paid by the consultant and invoiced to the City as a reimbursable} – include permit costs in project budget.

5. SCHEDULE:

The total project with construction is to be completed **9 months & 5 days** from issuance of notice-to-proceed. The project deliverables are to be phased as follows:

Temporary Systems: (To be done simultaneously)

Task 1.1 - Review of Existing System Requirements for Bypass Pumping - 7 calendar days

Task 1.2 – Temporary Electrical System - 14 calendar days

Permanent System:

60% construction plans applications - 45 calendar days

90% construction plans - 75 calendar days

Final construction documents- 95 calendar days

6. STAFF ASSIGNMENT (Consultant):

Aubrey Haudricourt, PE– Senior Electrical Engineer

Arthur Anchors, PE – Senior Electrical Engineer (Quality Control)

Jason Gillentine PE – Staff Electrical engineer

Laurel Smith, EIT – Staff Electrical Engineer

7. CORRESPONDENCE/REPORTING PROCEDURES:

ENGINEER's project correspondence shall be directed to:

Aubrey Haudricourt PE.

All City project correspondence shall be directed to:

Kelly J. O'Brien with copies to others as may be appropriate.

8. INVOICING/FUNDING PROCEDURES:

For work performed, invoices shall be submitted monthly to the City of Clearwater, Engineering Department, Attn.: Veronica Josef, Senior Staff Assistant, PO Box 4748, Clearwater, Florida 33758-4748. Contingency services will be billed as incurred only after written authorization provided by the City to proceed with those services.

City Invoicing Code: 0327-96664-561300-535-000.0000

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9. INVOICING PROCEDURES

At a minimum, in addition to the invoice amount(s) the following information shall be provided on all invoices submitted on the Work Order:

Purchase Order Number and Contract Amount.

The time period (begin and end date) covered by the invoice.

A short narrative summary of activities completed in the time period

Contract billing method – Lump Sum or Cost Times Multiplier

If Lump Sum, the percent completion, amount due, previous amount earned and total earned to date for all tasks (direct costs, if any, shall be included in lump sum amount).

If Cost Times Multiplier, hours, hourly rates, names of individuals being billed, amount due, previous amount earned, total earned to date for each task and other direct costs (receipts will be required for any single item with a cost of \$50 or greater or cumulative monthly expenses greater than \$100).

If the Work Order is funded by multiple funding codes, an itemization of tasks and invoice amounts by funding code.

10. SPECIAL CONSIDERATIONS:

The consultant named above is required to comply with Section 119.0701, Florida Statutes (2013) where applicable.

PREPARED BY: APPROVED BY:

A. Street Lee
Senior Vice President
McKim & Creed, Inc.

Michael D. Quillen, PE
City Engineer
City of Clearwater

Date

Date



CITY OF CLEARWATER ENGINEERING DEPARTMENT

WORK ORDER INITIATION FORM CITY DELIVERABLES

11. FORMAT

The design plans shall be compiled utilizing the following methods:

City of Clearwater CAD standards.

Datum: Horizontal and Vertical datum shall be referenced to North American Vertical Datum of 1988 (vertical) and North American Datum of 1983/90 (horizontal). The unit of measurement shall be the United States Foot. Any deviation from this datum will not be accepted unless reviewed by City of Clearwater Engineering/Geographic Technology Division.

12. DELIVERABLES

The design plans shall be produced on bond material, 24" x 36" at a scale of 1" = 20' unless approved otherwise. Upon completion the consultant shall deliver all drawing files in digital format with all project data in Autodesk Civil 3D file format. If not available Land Desktop files are still acceptable, however the City or Clearwater is currently phasing out Land Desktop.

NOTE: If approved deviation from Clearwater CAD standards are used the Consultant shall include all necessary information to aid in manipulating the drawings including either PCP, CTB file or pen schedule for plotting. The drawing file shall include only authorized fonts, shapes, line types or other attributes contained in the standard release of Autodesk, Inc. software. All block references and references contained within the drawing file shall be included. Please address any questions regarding format to Mr. Tom Mahony, at (727) 562 4762 or email address Tom.Mahony@myClearwater.com.

All electronic files (CAD and Specification files) must be delivered upon completion of project or with 100% plan submittal to City of Clearwater.

Marshall Street Influent Pump Station

McKim & Creed

WORK ORDER INITIATION FORM PROJECT BUDGET

Task	Description	Sub-consultant Services	Labor	Total
1.0	Pre- Design			
1.1	Review of Existing System Requirements for Bypass Pumping		\$10,000	
1.2	Temporary Electrical System		\$10,000	
				\$20,000
2.0	Pre-Design Evaluations			
2.1	Data collection		\$2000	
2.2	Electrical Infrastructure Assessment		\$6,000	
2.3	Existing Controls Assessment		\$5,000	
2.4	Structural Assessment	\$5,000	\$5,000	
2.5	Mechanical Assessment		\$12,000	
				\$30,000
3.0	Final Design Plans and Specifications			
3.1	60% Design Drawings and Specifications		\$48,600	
3.2	90% Design Drawings and Specifications		\$28,200	
3.3	Final Construction Documents and Specifications for Bidding		\$5,200	
				\$82,000
4.0	Bidding Services			
4.1	Pre-bid Meeting and Bidding Assistance		\$5,000	
				\$5,000
5.0	Construction			

Attachment "B"

5.1	Construction Phase Services		\$20,000	
5.2	Construction Observation Services		\$20,000	
5.3	Start Up Services		\$10,000	
				\$50,000
Subtotal, Labor and Subcontractors				\$5000
Permit Review Fees				\$0
Other Direct Costs (prints, photocopies, postage, etc.) (Not applicable to lump sum Work Orders)				\$0
Grand Total				\$192,000