



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

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**WORK ORDER INITIATION FORM  
for the CITY OF CLEARWATER**

**Date:** **January 20, 2017**

**Project Number:**

**City Project Number** **17-0016-UT**

**1. PROJECT TITLE:**

Lift Station 45 Force Main Replacement

**2. SCOPE OF SERVICES:**

The City of Clearwater (City) owns and operates Lift Station 45 and its associated 16-inch force main which transfer wastewater collected from the Sand Key service area to Lift Station 16 and, subsequently, to the Marshal Street Advanced Wastewater Treatment Plant (AWWTP). The force main is approximately 5,000 LF in length and is located along Gulf Boulevard between Lift Station 45 and the Sand Key Bridge. The force main was originally constructed in the 1970's and consisted of ductile iron material.

Approximately 1,300 LF of the original force main was replaced circa 2000 with PVC material as part of a JPA with Pinellas County. This section of the force main has been repaired several times since 2007; the latest repair occurred in December, 2016 after a pipeline break and subsequent minor spill. Considering the repeated repairs on the PVC force main, the remaining force main is approaching 40-years of services, the increased focus/requirements for spills, and the real impacts to the surrounding properties and water resources, the City decided to replace the force main in its entirety.

The City has requested McKim & Creed (Consultant) to provide professional engineering services needed to evaluate, design, and permit the replacement force main. The work included with this scope of services includes the following tasks:

**TASK 1.0 PROJECT MANAGEMENT AND ADMINISTRATION**

**Task 1.1 – Project Setup:** Consultant will develop project documents and filing systems needed to administer the project such as project schedule, project management plan, project QA/QC plan, project safety plan, hard and electronic file systems, and sub-contract agreements.

**Task 1.2 – Status Reports and Project Administration:** Administer the project and provide monthly status reports of the progress of this scope of work to accompany monthly invoices.

**Task 1.3- Project Meetings:** Consultant will schedule and attend a total of seven project meetings during the implementation of the project including:

1. Project Kick-Off Meeting
2. Technical Memorandum Review Meeting
3. FDEP pre-application meeting (domestic wastewater collection/transmission system construction permit)
4. FDEP pre-application meeting (environmental resource permit)
5. Pinellas County pre-application meeting (ROW Utilization Permit)
6. 60% Submittal Review Meeting
7. 90% Submittal Review Meeting

The Consultant will prepare the meeting minutes and distribute to the attendees.

## **TASK 2.0 PRELIMINARY DESIGN SERVICES**

**Task 2.1 – Data Collection and Review:** Consultant will conduct a site visit and review existing record drawings and utility atlas maps to become familiar with the obstacles within the corridor and develop design strategies to minimize community impacts and costs.

**Task 2.2 – Draft Technical Memorandum:** A Draft Technical Memorandum with proposed force main alignment, recommended installation techniques and a conceptual cost estimate will be developed and submitted to the City for review. Five hard copies and an electronic PDF copy (via e-mail) of technical memo will be provided.

**Task 2.3 – Final Technical Memorandum:** Incorporate comments from the Draft Technical Memorandum Review Meeting and finalize the technical memorandum. Five signed & sealed hard copies and an electronic PDF copy of memo (via e-mail) will be provided.

## **TASK 3.0 FINAL DESIGN SERVICES**

**Task 3.1 – Utility Coordination:** The Consultant will execute a design ticket with “Sunshine One” to identify the existing utility owners in the area of the proposed project. Aerial drawings of the project area will be submitted to the identified utility owners for markup of their facilities. This information will be incorporated into the 30% Design Drawings.

**Task 3.2– Survey Services:** Based on the alignment recommended in the approved Technical Memorandum, Consultant will perform a topographical survey of Lift Station 45 property and the selected right-of-way (ROW). The survey for the force main replacement (approximately 5,000 LF) will show above grade features including curb, sidewalks, driveways, trees and their drip lines, light poles, mail boxes, water meters,

valve boxes, fire hydrants, concrete, and asphalt. Topographic cross sections will be taken at a frequency to indicate apparent grade changes but not greater than 50-ft apart. The survey will extend 5-ft beyond Lift Station 45 property and the selected side of the ROW along Gulf Boulevard for the length of the improvements.

**Task 3.3 – SUE Services:** Conduct subsurface utility engineering (SUE) at potential utility conflict areas. A total of 30-test holes have been budgeted for this project. Location of the test holes will be shown on the construction plans with a corresponding table showing the results of the test holes including test hole number, utility type, depth to top of pipe, pipe diameter and pipe material.

**Task 3.4 – Geotechnical Services:** Geotechnical services will be performed to determine the suitability of in situ soils and general subsurface soil conditions within the project area. It is anticipated that six auger borings will be conducted to a depth of ten-feet below the existing grade to assist with the open cut design. Additionally, four standard penetration tests to a depth of 30-ft will be conducted to assist with trenchless installation locations. Visual soil classification, based on the Unified Soil Classification System (USCS) of the samples collected will be conducted in the laboratory for each boring completed along with seasonal high groundwater levels. Additionally corrosion testing will be performed on four soil locations. Following the analyses, a report will be prepared containing the results of the field testing and laboratory analysis with recommendations for specifying construction parameters that will assist in design and construction of the proposed force main.

**Task 3.5 – 60% Design Documents:** Consultant will prepare 60% drawings, technical specifications and opinion of probable construction cost. The drawings will consist of cover sheet, drawing index, general notes, survey information, plan view of the proposed installations, and civil, mechanical and maintenance of traffic details. Five copies of the documents will be provided to the City for review and comment.

**Task 3.6 – 90% Design Documents:** Consultant will prepare 90% drawings, technical specifications and opinion of probable construction cost based on the comments received during the 60% Review Meeting. The drawings will expand upon the 60% Design by including plan and profile drawings, geotechnical data and SUE locates. Specifications will include the City's front end documents and geotechnical report. The City's standard technical sections will be utilized where possible and amended if required to meet the needs of the project. Five copies of the documents will be provided to the City for review and comment. These documents will be submitted to the regulatory reviewing agencies to obtain the required permits to construct the project.

**Task 3.7 – Issued for Bid Documents:** Consultant will prepare Issued for Bid (IFB) drawings, technical specifications and opinion of probable construction cost based on the comments received during the 90% Review Meeting and those received from the regulatory agencies. It is anticipated that these documents will be used by the City to solicit bids from Contractors. Five copies of the documents will be provided to the City; one copy will be signed and sealed for the City's file. The IFB documents will also be provided electronically to the City in AutoCAD format and additionally, along with the specifications, in PDF format.

## **TASK 4.0 PERMITTING**

**Task 4.1 – Florida Department of Environmental Protection (FDEP) Domestic Wastewater Collection/Transmission System Construction Permit:** Prepare and submit the permit application to the FDEP to construct the force main. Address the Department’s request for information (RFI) needed to obtain the permit. Consultant will pay the \$500.00 for the permit application fee.

**Task 4.2– Florida Department of Environmental Protection (FDEP) Environmental Resource Permit (ERP):** Prepare and submit a General Notice Environmental Resource Permit application to the FDEP to construct the force main. Address the Department’s request for information (RFI) needed to obtain the permit. Consultant will pay the \$250.00 for the permit application fee.

**Task 4.3– Pinellas County ROW Utilization Permit:** Prepare and submit ROW Utilization Permit application for County Road 183 (Gulf Boulevard). Address the County’s request for information (RFI) needed to obtain the permit. Permit fees are not anticipated.

## **TASK 5.0 BIDDING**

**Task 5.1 – Pre-bid Conference:** Attend one Pre-Bid Conference to review the project requirements with the City and prospective Contractors. Consultant will provide answers to technical questions; contractual questions will be answered by the City.

**Task 5.2 – RFI Review and Response:** Review and respond to the Contractor’s Request for Information (RFI) by providing clarifications, and/or revisions to the specifications and drawings. The City will be responsible for distributing the addenda to the plan holders.

**Task 5.3 – Bid Evaluation:** Consultant will assist the City in the evaluation of the apparent low bidder by reviewing the three lowest bid submittals for mathematical accuracy, reviewing their qualifications against the stated requirements and contacting the provided references for past work experience.

**Task 5.4 - Recommendation Letter:** Consultant will provide the City with a written recommendation letter to award the contract.

### **Additional Information**

- City will provide available Record Drawings and Atlas Maps of their facilities within the project area along with any available documents showing the previous repairs of the force main.
- Construction services can be provided under a separate Work Order.

## **3. PROJECT GOALS:**

The main project goal is to replace the aging force main infrastructure between Lift Station 45 and the south end of the Sand Key Bridge.

Deliverables for the project will include:

- Monthly Status Reports with Invoice
- Project Meeting Minutes
  - Project Kick-Off Meeting
  - Draft Technical Memorandum Review Meeting
  - 60% Design Review Meeting
  - 90% Design Review Meeting
  - Permitting Review Agency Pre-application Minutes
    - FDEP Wastewater Collection/Transmission System Construction Permit
    - FDEP Environmental Resource Permit
    - Pinellas County ROW Utilization
  - Pre-construction Meeting
  - Construction Progress Meetings
- Draft and Final Technical Memorandum:
  - Five hard copies and one electronic PDF copy each
- 60% and 90% Design Documents
  - Five hard copies and one electronic PDF copy each
- Issued for Bid Contract Documents
  - Five hard copies (one copy signed and sealed )and one electronic PDF copy
- Two signed and sealed hard copies of the Geotechnical Report
- Construction Permits:
  - FDEP Wastewater Collection/Transmission System Construction Permit
  - FDEP Environmental Resource Permit
  - Pinellas County ROW Utilization Permit
- Letter of Recommendation to award project

#### 4. **BUDGET:**

See attachment "B"

This price includes all labor and expenses anticipated to be incurred by McKim & Creed, Inc. for the completion of these tasks in accordance with Professional Services Method "B" – Lump Sum – Percentage of Completion by Task, **for a fee not to exceed One Hundred Seventy Thousand, Eight Hundred and Forty-Seven Dollars (\$170,847.00).**

#### 5. **SCHEDULE:**

Project schedule will commence upon receipt of written authorization from the City. The project is to be completed within **224 calendar days** from issuance of notice-to-proceed. The project shall be phased as follows:

<b>Kick-off Meeting</b>	<b>10 calendar days</b>
<b>Draft Technical Memorandum</b>	<b>28 calendar days</b>
<b>Final Technical Memorandum</b>	<b>56 calendar days</b>
<b>60% Design</b>	<b>84 calendar days</b>

**90% Design and Permit Submittal**

**140 calendar days**

**Issued for Bid Documents**

**224 calendar days**

**6. STAFF ASSIGNMENT (Consultant):**

A. Street Lee, PE – Principal-in-Charge  
David C. Wehner, PE – Senior Project Manager  
Kevin Dickinson, EI- Engineer Intern

**7. CORRESPONDENCE/REPORTING PROCEDURES:**

Engineer's project correspondence shall be directed to:  
David C. Wehner, PE

All City project correspondence shall be directed to:  
Todd Kuhnel 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.

City Invoicing Code: 0382-96654-561300-535-000-0000

**9. INVOICING PROCEEDURES**

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

- A. Purchase Order Number and Contract Amount.
- B. The time period (begin and end date) covered by the invoice.
- C. A short narrative summary of activities completed in the time period
- D. Contract billing method – Lump Sum or Cost Times Multiplier
- E. 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).
- F. 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).
- G. If the Work Order is funded by multiple funding codes, an itemization of tasks and invoice amounts by funding code.

**10. SPECIAL CONSIDERATIONS:**

- A. The consultant named above is required to comply with Section 119.0701, Florida Statutes (2013) where applicable.
- B. Design review meetings to be held within two (2) weeks of submittal.

**PREPARED BY:**

**APPROVED BY:**

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

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**Michael D. Quillen, PE  
City Engineer  
City of Clearwater**

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**Date**

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**Date**



# CITY OF CLEARWATER ENGINEERING DEPARTMENT

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## WORK ORDER INITIATION FORM CITY DELIVERABLES

### 1. FORMAT

The design plans shall be compiled utilizing the following methods:

1. City of Clearwater CAD standards.
2. 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.

### 2. 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.

# Lift Station 45 Force Main Replacement

## McKim & Creed, Inc.

### WORK ORDER INITIATION FORM PROJECT BUDGET

Task	Description	Sub-consultant Services	Labor	Total
<b>1.0</b>	<b>Project Management and Administration</b>			
1.1	Project Setup			\$2,988
1.2	Status Reports and Project Administration			\$4,952
1.3	Project Meetings			\$4,921
				<b>\$12,861</b>
<b>2.0</b>	<b>Preliminary Engineering</b>			
2.1	Data Collection and Review			\$1,996
2.2	Draft Technical Memorandum			\$7,959
2.3	Final Technical Memorandum			\$3,997
				<b>\$13,952</b>
<b>3.0</b>	<b>Final Engineering</b>			
3.1	Utility Coordination			\$2,801
3.2	Survey Services	\$26,850		\$26,850
3.3	SUE Services			\$18,850
3.4	Geotechnical Services	\$7,669		\$7,669
3.5	60% Design Documents			\$31,813
3.6	90% Design Documents			\$25,823
3.7	Issued for Bid Documents			\$9,785
				<b>\$123,591</b>
<b>4.0</b>	<b>Permitting</b>			
4.1	FDEP Wastewater Permit			\$5,588
4.2	FDEP ERP			\$3,820
4.3	Pinellas County ROW Utilization Permit			\$3,470
				<b>\$12,878</b>
<b>5.0</b>	<b>Bidding Services</b>			
5.1	Pre-bid Conference			\$1,251
5.2	RFI Review and Response			\$3,790
5.3	Bid Evaluation			\$1,838
5.4	Recommendation Letter			\$686
				<b>\$7,565</b>
<b>Grand Total</b>				<b>\$170,847</b>



January 24, 2017

David C. Wehner, PE  
**McKim & Creed, Inc.**  
1365 Hamlet Avenue  
Clearwater, FL 33756

Re: Proposal for Professional Surveying Services  
**Lift Station 45 Force Main – Topographic Route Survey**  
City of Clearwater, Florida

Dear Mr. Wehner:

Pursuant to the information you provided, Hyatt Survey Services, Inc. is pleased to submit this proposal for the following professional surveying services required on the above-referenced project:

#### **SCOPE OF SERVICES**

I. **Topographic Route Survey:**

- a. Hyatt Survey will perform a Topographic Survey of the proposed Lift Station 45 force main route as located along Gulf Boulevard on Sand Key in Clearwater, Florida and outlined in the attached exhibit. The survey limits include approximately 5,000 lf of existing road right of way and the associated lift station 45 site. (See attached exhibits)
- b. The survey limits will extend from the centerline of Gulf Boulevard east to a point five (5') east of the eastern right of way line.
- c. Right-of-way lines for Gulf Boulevard will be based on the last deed of record for each adjoining property and or FDOT Right-of-Way Maps. No Title Searches will be performed by Hyatt Survey as part of this scope of services.
- d. Hyatt Survey will locate visible aboveground site improvements, utilities and appurtenances. Underground utilities will be graphically depicted on the survey drawing(s) in accordance with visible appurtenances. Hyatt Survey Services, Inc. will assume NO responsibility for the completeness and/or accuracy of any subsurface data represented on the survey drawing(s) from information provided by others.
- e. Hyatt Survey will determine site elevations on a maximum one-hundred (100) foot grid, at grade breaks, at changes in direction on curbing/paving to the limits detailed above.
- f. Hyatt Survey will locate/identify living trees with a 4-inch or greater DBH (diameter @ breast height).
- g. All data will be referenced to the Florida State Plane Coordinate System, West Zone (NAD83 datum) and the NAVD88 vertical datum.



David C. Wehner, PE  
**McKim & Creed, Inc.**  
January 24, 2017  
Page 2

- h. Hyatt Survey will supply a CAD file containing the information detailed above and up to six (6) signed and sealed surveys as the final deliverables.
  - i. All work will be completed within 45 days of receipt of a written "notice to proceed."
- Hyatt Survey proposes to provide these services for the lump sum fees of **\$ 26,850.00**

All work will be performed in accordance with the standards of practice outlined in Chapter 5J-17 of the Florida Administrative Code, pursuant to Section 472.027, Florida Statutes.

I have attached our standard "General Contract, Provisions and Conditions" as part of this agreement. To accept this proposal, please sign where indicated below and return a copy of this document as your acceptance of this agreement and our authorization to proceed.

If you have any questions or comments, please do not hesitate to contact me at 941-748-4693. I look forward to working with you on this project.

Sincerely,  
**HYATT SURVEY SERVICES, INC.**

Pamela A. Hyatt, P.S.M.  
President

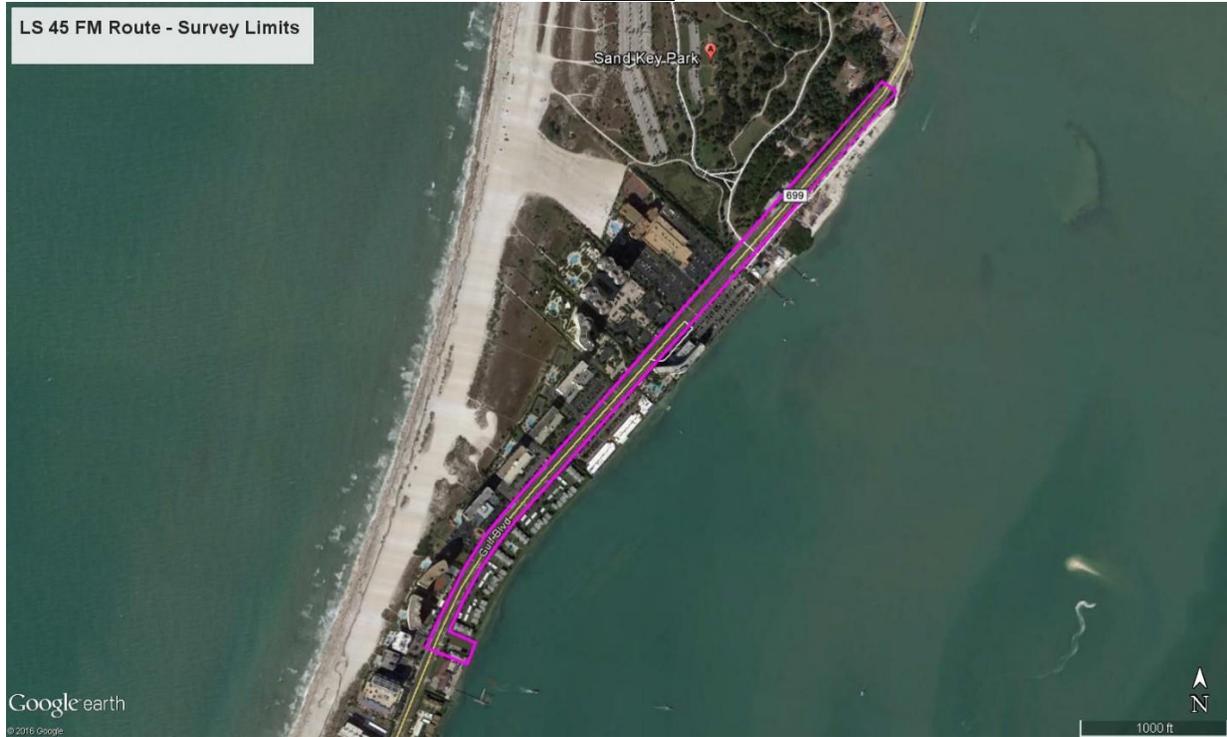
Accepted by: **McKim & Creed, Inc.**

Sign here: \_\_\_\_\_ Date: \_\_\_\_\_

Print name here: \_\_\_\_\_



**EXHIBIT**





**ATTACHMENT "A"**  
**GENERAL CONTRACT**  
**Provisions & Conditions**

**Services to be rendered under this Contract Agreement (Agreement) between Hyatt Survey Services, Inc. (Hyatt Survey) and the Client are based upon those provisions as set forth in the original proposal letter (Proposal) and are included together with and made part of this Agreement. The Proposal and these General Contract Provisions & Conditions represent the entire understanding between the Client and Hyatt Survey. Any modifications in the terms of this Agreement must be executed in writing and accepted by both parties involved.**

**A. Description of Services:**

1. The Basic Services to be performed under this contract are limited to those "Scope of Services" items as specifically stated on the attached proposal and no others.
2. Any Additional Services requested after the commencement date of this project will be considered as Additional Services to the Basic Services. All additional Services will be subject to additional compensation either at Hyatt Survey's current hourly rate schedule or at a rate as agreed to by both Hyatt Survey and the Client.

**B. Standard Provisions:**

1. The Proposal is valid for a period of thirty (30) days from the date thereon. All hourly rates quoted are subject to revision quarterly, unless otherwise agreed upon by both parties.
2. Hyatt Survey will carry and maintain worker's compensation, general liability, professional liability and comprehensive automobile liability insurances for the period of this contract. Proof of insurance will be furnished upon request. Coverage requested above the established company limits may be available upon agreement for reimbursement for additional expenses by the Client.
3. Payments to Hyatt Survey are the sole responsibility of the signatory of the Agreement and are not subject to any third party compensation condition or agreement. Invoices are rendered as agreed upon, but not to exceed monthly, and are deemed due and payable upon receipt. Outstanding invoices over thirty (30) days past due from the date on the invoices are deemed "past due" and subject to a finance charge of 1 ½ percent per month. Invoice payments must be kept current and are not to exceed 30 days. After this 30 days all work may be subject to suspension, unless otherwise agreed upon by both parties.
4. Either the Client or Hyatt Survey may, with seven (7) days written notice, terminate this agreement, if the other party fails to perform under the terms of this contract. If termination of the project is through no fault of Hyatt Survey, Hyatt Survey will be compensated for all services performed to date, including all reimbursable expenses along with a 10% "Termination Expense Assessment" of all remaining unbilled project fees per this agreement. Additional project mobilization or start up fees may be added to any fee remaining after termination of a project, if the project is reactivated after a period of ten (10) days.



5. Hyatt Survey's services under this contract do not include participation in any actions of litigation. All expert witness services are to be provided by and compensated for under a separate contract as negotiated and executed by the parties.
6. The Client and Hyatt Survey agree that no warranties, guarantees, representations, or statements of any nature have been relied upon and used as a basis for this agreement, unless contained herein or as may be implied to in Florida Statutes.
7. Hyatt Survey is not responsible for any failure to perform under any conditions which arise from causes beyond Hyatt Survey's reasonable control or which may be caused by any unavoidable or unforeseeable action arising beyond any reasonable Hyatt Survey or Client control.
8. To the fullest extent provided by law, and withstanding any other provision of this Agreement, the total aggregate liability due to any error, omission or other professional negligence will be limited to a total sum of \$10,000.00 or the fee agreed upon under this Agreement (less any third part costs), whichever is greater.
9. Any errors, omissions or deficiencies on any document issued by Hyatt Survey and observed by the Client or his representative, must be reported only to Hyatt Survey promptly in order to facilitate mitigation of any claimed losses, which may arise or be due.
10. Hyatt Survey will be entitled to collect it's costs and reasonable attorney's fee incurred in the collection of any fee due Hyatt Survey; including all fees incurred in any litigation resulting from the enforcement of any of the terms of this Agreement.
11. All original documents and files, both digital and hardcopy, resulting from the Agreement are and will remain the property of Hyatt Survey. Hyatt Survey will furnish six (6) copies of the final product as directed for delivery by the Client. Any reuse or reissue of drawings or documents must be approved by Hyatt Survey and must be limited to the specific purpose stated on the face of the document. The Client will hold Hyatt Survey harmless from all claims arising from unauthorized acts of reissuance or reuse of any document of service in this Agreement.
12. The Client will approve all sub-contracts or sub-consultants prior to engagement by Hyatt Survey on their behalf. Hyatt Survey may act as an Authorized Agent only when both the Client and Hyatt Survey properly execute a written agreement.

Geotechnical Engineering & Construction Materials Testing

McKim & Creed, Inc.

January 26, 2017

1365 Hamlet Avenue

Clearwater, Florida 33756

Attention: Mr. David C. Wehner, P.E.  
Senior Project Manager

RE: Proposal for Geotechnical Services  
Lift Station 45 Force Main Replacement  
Gulf Boulevard  
Sand Key, Florida  
Our File: DES 1710567P

Dear Mr. Wehner:

Pursuant to your request, DRIGGERS ENGINEERING SERVICES, INC. (DESI), is pleased to furnish this revised proposal for providing geotechnical engineering services for the subject project. Presented herein is a brief discussion of the anticipated scope of services together with requested fees based upon the discussed scope of services.

#### GEOTECHNICAL INVESTIGATION PROGRAM

Based on the information provided, the overall project consists of about 5,000 lineal feet of force main. A geotechnical investigation program is warranted to provide subsurface soils and groundwater information that will be used by prospective contractors. The proposal herein will address the scope of services requested.

SOIL BORINGS – You have requested four (4) Standard Penetration Test (SPT) borings along the alignment. The borings are budgeted to a depth of 30 feet below grade. The locations of the borings have not yet been provided. However, we have assumed these deeper borings will take place where potential HDD methods will be used for installation. A series of six (6) hand auger borings was also requested along the alignment to a depth of 10 feet. The locations of these borings have not yet been established either.

The Standard Penetration Test (SPT) method will be utilized to obtain penetration resistance values indicative of the relative density or consistency of the soils penetrated as well as soil samples for examination and laboratory classification testing.

We have also anticipated that the borings will generally be conducted within the road right of way off the edge of pavement which will require minimal maintenance of traffic. However, based on our inspection, this will necessitate closing the sidewalk on the east side of the road to permit performing the borings. Where borings are desired that cannot be conducted off the edge of pavement due to the presence of underground utilities, the borings may need to be moved into the roadway which will necessitate a temporary lane closure in accordance with proper FDOT maintenance of traffic procedures. The estimate herein, though, is based on performing the borings off the edge of pavement and assumes a temporary sidewalk closure is permissible.

Excess drill cuttings will be removed from each work area. We have also budgeted for cement grouting each borehole to prevent borehole collapse as well as to positively seal the borehole to prevent a preferential seepage path for drilling fluid during potential horizontal directional drilling.

LABORATORY CLASSIFICATION TESTING - Laboratory classification tests will be performed on representative samples to aid in assessing the engineering properties of the subsurface soils. Our laboratory tests will include grainsize analyses, Atterberg limits and organic content tests where warranted. Corrosivity testing is also included.

REPORT PRESENTATION- The results of our field and laboratory studies will be included in a geotechnical report encompassing a presentation and discussion of the following:

1. Logs of the exploratory borings including both Unified Soil Classification System and AASHTO designations and soil boring profiles
2. Results of laboratory testing
3. Discussion of subsurface soil and groundwater conditions including estimates of wet season groundwater levels
4. Recommendations for subgrade and fill preparation
5. Recommendations relative to directional drilling
6. Suitability of excavated soils for use as backfill
7. Geotechnical soil parameters as may be applicable to the design of earth retention systems at entry-exit points
8. General geotechnical recommendations for control and management of groundwater
9. Geotechnical construction considerations

## REQUESTED FEES

Based on the above discussed scope of services and the attached unit fee schedule we request a budget of \$7,669.00. In the event that conditions are encountered that would necessitate altering the scope of services, or additional services are requested, we will contact you and secure your authorization prior to exceeding this budget.

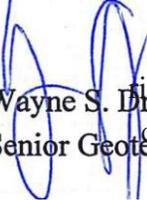
Our fee proposal is based upon the following conditions:

1. McKim and Creed will provide a boring location plan for approximate locations of the borings prior to drilling activities.
2. DESI will coordinate with Sunshine State One Call with respect to utility notification. We have also assumed we will be provided with all available information with respect to existing utilities
3. We have assumed that the borings will be conducted off the edge of pavement within the right of way requiring minimal MOT signage.
4. We have assumed we will be permitted to temporarily close the sidewalk in the vicinity where the borings are taking place.
5. DESI will secure appropriate permits from the County for our field work. We do not anticipate the need for securing any FDOT permits.
6. All test borings will be cement grouted so as to avoid future borehole collapse as well as seal any preferential seepage paths that could impact any directional drilling.

DRIGGERS ENGINEERING SERVICES, INC. appreciates this opportunity to be of service to you on this project. Should you have any questions, please do not hesitate to contact the undersigned at your convenience.

Respectfully submitted;

DRIGGERS ENGINEERING SERVICES, INC.

  
 Wayne S. Driggers, P.E.  
 Senior Geotechnical Engineer

WSD-PR0/1710567

Copies submitted:

**UNIT FEES AND ESTIMATED COSTS**

<b>ITEM</b>	<b><u>DESCRIPTION</u></b>	<b><u>UNIT FEE</u></b>	<b><u>ESTIMATED AMOUNT</u></b>	<b><u>ESTIMATED COST</u></b>
1.	Mobilization and Demobilization	\$350.00 LS		350.00
2.	Boring Layout, Coordination of Utility Locates and Permit	125.00/Hr.	4 Hrs.	500.00
	a) Permit Cost	150.00 LS		150.00
3.	Standard Penetration Test Borings (4@ 30')			
	a) Maintenance of Traffic Equipment Rental	150.00/Day	2 Days	300.00
	b) Maintenance of Traffic, Clean-Up, Hole to Hole Setup (0.5 Hr. per hole)	235.00/Hr.	2 Hrs.	470.00
	c) Soil (Truck-Mounted Equipment)	13.00/LF	120 LF	1,560.00
	d) Temporary Casing	6.25/LF	0 LF	0.00
	e) Borehole Grouting	5.00/LF	120 LF	600.00
4.	Hand Auger Borings (6@ 10')	10.00/LF	60 LF	600.00
5.	Laboratory Testing			
	a) Grainsize Analyses	30.00 Ea.	10	300.00
	b) Organic Content Tests	30.00 Ea.	4	120.00
	c) Atterberg Limits Determinations	65.00 Ea.	2	130.00
	d) Corrosivity Series (pH, S04, CL, resistivity)	250.00 Ea.	3	750.00
6.	CADD Operator	70.00/Hr.	4 Hrs.	280.00
7.	Clerical	59.50/Hr.	2 Hrs.	119.00
8.	Engineering Analysis and Report	180.00/Hr.	8 Hrs.	1,440.00
<b>TOTAL ESTIMATED COST:</b>				<b>\$7,669.00</b>

Note: The above unit fees are consistent with our current continuing services agreement with the City of Clearwater