



Stantec Consulting Services Inc.

901 Ponce de Leon Boulevard, Suite 900, Coral Gables FL 33134-3070

February 11, 2019

File: 1773XXXX

Attention: Mr. Aqeel Abdool-Ghany

City of Hallandale Beach

400 S Federal Highway

Hallandale, Florida 33009

Reference: RFP #FY 2013-2014-006 Continuing Engineering Services

Task Authorization: TBD

Proposed 12-inch PVC Water Main Improvement along Foster Road

Dear Mr. Abdool-Ghany,

Stantec Consulting Inc. is pleased to present our Scope of Services for professional engineering services for the installation of approximately 3,250 LF of proposed 12-inch Polyvinyl chloride (PVC) Water Main along Foster Road from NW 9th Avenue to NW 6th Avenue, and approximately 2,400 LF of 8-inch PVC water main along NW 9th Street from NW 9th Avenue to NW 8th Avenue, along NW 8th Avenue from NW 9th Street to Foster Road along the side streets as indicated in the design services below. The existing 6" water main along Foster Road will be abandoned in place. There is an existing 4-inch WM along NW 9th Street between NW 8th Avenue and NW 7th Terrace which will be abandoned in place.

The project includes installation of fire hydrants according to the Hallandale Beach Fire Department requirements, new water services, reconnections to existing water mains, and stub outs for future connection within the project limits.

In accordance with the Performance agreement for RFP #FY 2013-2014-006 Continuing Professional Services between MWH Americas, Inc., now Stantec Consulting Services, and the City of Hallandale Beach (COHB) Florida, the services proposed under this scope of work includes: survey, design, preparation of construction documents, permitting, limited procurement support, and limited construction phase services. Stantec's scope of services will include the following;

SCOPE OF SERVICES:

TASK 1 – Surveying

Stantec shall utilize a registered land surveyor to complete a site and route survey in general accordance with the Broward County Site and Route Survey Requirements. The goals and objectives of the survey investigation shall include the following:

1. To determine locations, dimensions, elevations and measurements for all existing features along the water main route;
2. To obtain topographic information for all visible fixed items along the proposed water main route;

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3. To obtain specific boundary information, such as right of way lines, subdivision lines, lot lines, base lines and easement lines, as required by the project.
4. Subsurface utility engineering (SUE) to identify potential utility conflicts by providing 10 verified vertical horizontal (vvh) locates on existing utilities.

The survey shall be signed and sealed by a Florida Registered Professional Land Surveyor.

Detailed information regarding the Survey Scope of Work and Fees are included as Attachment B

TASK 2 – Geotechnical Investigation

Stantec shall retain and utilize the services of Geotechnical Engineering firm to carry out geotechnical investigation. The Design Consultant shall prepare a listing of the geotechnical investigation requirements specific to the scope of work. The goals and objectives of the geotechnical investigation shall include the following:

1. Identify soil types are within project area
2. Identify the characteristics and properties of the soils present,
3. Use available soil characteristics, properties and potential project geometrics to identify possible geotechnical concerns
4. Provide geotechnical recommendations for engineering design
5. Obtain groundwater table elevation

Upon completion of the geotechnical investigation, the Engineering consultant shall prepare a report including the following:

1. Brief description of soil conditions observed in the field and in the laboratory
2. Conclusions and recommendations regarding:
 - a. Primary geotechnical engineering concerns and mitigating measures, as applicable
 - b. Site preparation and grading including treatment of weak, porous, compressible and expansive surface soils and the construction of fills.
 - c. Preparation of subgrade and aggregate base for pavement areas
 - d. Pavement sections
3. Expected sub-surface conditions

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The geotechnical investigation and report shall meet current Broward County Standards and Specifications and shall be signed and sealed by a Florida Registered Professional Engineer.

Additional information regarding the Geotechnical Scope of Work and Fees are included as Attachment C.

TASK 3 – Design Engineering Services

- Attendance to kickoff meeting with COHB and preparation of a draft and final Meeting Minutes. Stantec shall have two individuals in attendance.
- Phase review meetings with COHB at 30%, 60%, 90% and 100% submittal. Stantec shall have two individuals in attendance.
- Permitting with Florida Department of Environmental Protection
- Coordinate and schedule topographic survey of proposed work site, as per COHB requirements.
- Coordinate and schedule geotechnical soil borings of proposed work site, as per COHB requirements.
- Investigate and develop index and mapping of potential project impacts resulting from existing environmental conditions.
- Three site visits at to confirm design documents
- Utility Coordination
- Coordination with recent and future projects to avoid conflicts and repetitious construction.
- Gather and review background information and as-built's.
- Identification of Utility Conflicts and Documented Information on the Monthly Utility / Agency / Municipality Tracking Sheet. Sunshine 811 Design Ticket will be provided as backup.
- Development of Construction Plans. Plans will include reconnection to existing water mains and stub outs at the following locations;
 - Reconnection to an existing 8" and 6" watermain at NW 9th Avenue
 - Two (2) 8" stub out and blow off for future connection at NW 9th Avenue
 - Reconnection to an existing 6" watermain between NW 9th Avenue and NW 8th Terrace
 - Reconnection to an existing 6" water main and 8" stub out for future connection at NW 9th Street and NW 8th Avenue
 - Reconnection to existing 6" water main and 8" stub out for future connection Foster Road and NW 7th Terrace
 - Reconnection to existing 6" water main (north, south and west) and 8" stub out (north, south and west) for future connection at Foster Road and NW 7th Avenue

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- Reconnection to existing 8" water main at Foster Road and NW 6th Avenue and 8" stub out for future connection (north and south)
- Reconnection to existing 20" WM at NW 4th Avenue with a 20"x12" tapping sleeve and 12" tapping valve.
- Develop Maintenance of traffic control plans
- Identify Pavement Repair or Pavement Reconstruction Requirements and Proposed Pavement Resurfacing limits.
- Project Schedule Update in Microsoft project
- Preliminary Opinion of Probable Construction Cost.
- Contract and Bid Documents (Construction Specifications)
- Prepare and submit progress drawings and documents for COHB review and approval as follow:

a) 30% submittal:

30% drawings and technical specification's table of contents. (Deliverables include: five (5) copies of 11" x 17" (Half Size) Design Plans at 1"=40" scale for Plan & Profile, one (1) copy of technical specification's table of contents, two (2) copies of preliminary Opinion of Probable Construction Cost, and draft and final meeting minutes).

b) 60% submittal:

60% drawings, draft technical specifications, preliminary Opinion of Probable Construction Cost and draft schedule of values. (Deliverables include: five (5) copies of 11" x 17" (Half Size) Design Plans at 1"=40" scale for Plan & Profile, two (2) copies of draft of the technical specifications, two (2) copies of preliminary Opinion of Probable Construction Cost, one (1) copy of draft schedule of values, and draft and final meeting minutes).

c) 90% submittal:

90% permit drawings, updated/reviewed technical specifications, schedule of values, and Opinion of Probable Construction Cost. (Deliverables include: five (5) copies of 24" x 36" (Full size) Design Plans at 1"=20" scale for Plan & Profile, two (2) copies of updated technical specifications, two (2) copies of updated Opinion of Probable Construction Cost, one (1) copy of updated schedule of values, and draft and final meeting minutes).

d) Permit Package:

Permit submittal and resolution of permit review comments. (Deliverables include: eight (8) copies of 24" x 36" revised 90% Design Plans at 1"=20" scale for Plan & Profile, two (2) copies of technical specifications signed and sealed by Stantec's Engineer of Record (EOR), completed permit applications

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for each agency signed and sealed by Stantec's EOR, tracking sheet with indication of dates of submittal of each application and approval or comments from the corresponding agency).

e) 100% Submittal:

Prepare and submit 100% Final drawings, technical specifications, schedule of values, and Opinion of Probable Construction Cost. (Bid Package shall include five (5) copies of approved 100% Construction Plans in 24" x 36" format, Master Specification Book (One (1) original not bound, and four (4) copies bound, Final Opinion of Probable Cost, DVD with 100% Construction Plans (CADD files and PDFs), Master Specifications book in Word, Final Opinion of Probable Cost in excel, draft and final meeting minutes).

Construction plans shall include the following;

- Cover Sheet with Sheet Index
- General Notes
- Legend and Key Plan
- Tabulation of Quantities – water main
- Tabulation of Quantities – Valve and Manhole adjustment
- Tabulations of Quantities – Water meter (pipes & meter)
- Plan and Profile for mainline
- Plan and Profile for side streets
- Plan and profile (proposed fire hydrant connections)
- Traffic Control Notes
- Traffic Control Plans
- General Details
- Typical Details

Detailed information regarding the Design Fees are included as Attachment A.

TASK 4 – Limited Procurement Support Services

- a. Prepare for and attend a Pre-bid project briefing
- b. Coordinate and respond to questions and issue addenda

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- c. Review and comment on Schedule of Values
- d. Provide technical support to COHB PM during preparation of recommendation for apparent low bidder
- e. Provide input and assistance during contract award process.

TASK 5 – Limited Construction Support Services

- a. Attend pre-construction meeting. Meeting will be attended by 2 Stantec individuals.
- b. Periodic construction observation and report once per week during construction. Stantec inspector shall be onsite to observe critical aspect of the water main construction to assist with the project certification and permit close out. Aspects of construction to be observed will include connection to existing water system, flushing, pressure tests, and review of bacteriological results.
- c. Shop drawing review
- d. Attend construction meetings
- e. Respond to RFI's
- f. As-Built Review
- g. Project close-out, punch list and final project certification

ASSUMPTIONS:

- 1. Proposed water main will be installed with a minimum of 36-inches of cover.
- 2. Connections to existing mains will be made by cut in tees or solid sleeves
- 3. Line stops will be included in the design for connection to the existing 8" WM
- 4. All drawings will be prepared using AutoCAD Civil3D.
- 5. COHB will prepare and provide to Design Consultant complete front-end General Specifications, specifically project Bidding and Contracting Requirements.
- 6. All permit fees shall be paid by COHB.
- 7. It is assumed that the Stantec EOR and inspector will attend up to 4 construction meetings.
- 8. It is assumed that Stantec will assist COHB in reviewing and responding to 5 addenda

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9. It is assumed that Stantec will review a total of up to 8 shop drawings including resubmittals.
10. It is assumed that Stantec will review and respond to up to 10 RFIs
11. City of Hallandale will provide the service of a fulltime inspector for the duration of construction.

EXCLUSIONS:

1. Hydraulic modeling
2. Public involvement services are not required to be provided by the Design Consultant.
3. Design of waste water services
4. Evaluation of alternative corridors for proposed pipe alignment
5. Items not specifically stated in Scope of Services

COMPENSATION

Stantec agrees to provide the scope of services above for the lump sum fee compensation of;

Tasks 1: Surveying.....	\$34,120.00
Tasks 2: Geotechnical.....	\$4,948.00
Tasks 3: Design.....	\$126,899.00
Tasks 4: Procurement Support.....	\$5,346.00
Tasks 5: Construction Support.....	\$28,392.00
Total.....	\$199,705.00

We appreciate the opportunity to present our services to you. If you have any questions regarding this proposal, please do not hesitate to contact our office.

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Regards,

Stantec Consulting Services Inc.

Ramon Castella PE, ENV SP, LEED AP
Vice President
Phone: 305 445 2900 x 2235
Fax: 305 445 3366
Ramon.Castella@stantec.com

Approved for City of Hallandale Beach
By:

Name (Type or Printed)

Title

Signature

Date

Attachment: A thru D
c.

cd(g v:\1773\business_development\city of hallandale\rfp fy2013-2014-006\1773xxxx~proposed 12-inch wm\low city of hallandale watermain replacement.docx

Design with community in mind

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APPENDIX A

FEE PROPOSAL

ATTACHMENT A - Sample Proposal for Engineering Services Labor Expenses																		
Position	Name & (Company)	Hourly Rate	Task 3a 30% Design		Task 3b 60% Design		Task 3c 90% Design		Task 3d Permit Package		Task3e Final Design		Task 4 Limited Procurement Support		Task 5 Limited Construcion Support		Total Labor Hours	Multipled Costs
		\$	Hrs	\$	Hrs	\$	Hrs	\$	Hrs	\$	Hrs	\$	Hrs	\$	Hrs	\$	Hrs	\$
Senior Project Manager	Dave Clarke, PE	166.00	20	\$ 3,320.00	20	\$ 3,320.00	20	\$ 3,320.00	8	\$ 1,328.00	8	\$ 1,328.00	18	\$ 2,988.00	30	\$ 4,980.00	124	\$20,584.00
Project Engineer	Stephen MacEachern, PE	151.00	8	\$ 1,208.00	12	\$ 1,812.00	12	\$ 1,812.00	0	\$ -	8	\$ 1,208.00		\$ -		\$ -	40	\$6,040.00
Civil Designer	Larissa Faria, EI	131.00	164	\$ 21,484.00	168	\$ 22,008.00	101	\$ 13,231.00	32	\$ 4,192.00	39	\$ 5,109.00	18	\$ 2,358.00	76	\$ 9,956.00	598	\$78,338.00
CAD Designer	Eduardo Robaina	137.00	80	\$ 10,960.00	100	\$ 13,700.00	60	\$ 8,220.00		\$ -	51	\$ 6,987.00		\$ -		\$ -	291	\$39,867.00
Environmental Scinetist	Craig Schmittler	147.00	16	\$ 2,352.00		\$ -		\$ -		\$ -		\$ -		\$ -		\$ -	16	\$2,352.00
Senior Inspector	Fernando Fargas	116.00	0	\$ -		\$ -		\$ -		\$ -		\$ -		\$ -	116	\$ 13,456.00	116	\$13,456.00
Sub-totals			288	\$ 39,324.00	300	\$ 40,840.00	193	\$ 26,583.00	40	\$ 5,520.00	106	\$ 14,632.00	36	\$ 5,346.00	222	\$ 28,392.00	1185	\$160,637.00

Summary of Direct Expenses			
Units		\$/Unit	Total
Air Travel	Coach class - from	to	
Lodging (by days)	See Attached "Maximum Daily Lodging Rates"		
Car Rental (by days)	\$35.00/day		
Gas (for rental cars only)	\$2.75/gallon		
Mileage	\$0.48529/mile (for use of personal vehicle)		
			Subtotal Direct Expense \$ -
Total Labor and Direct Expenses =			Labor, Direct Expense and I.G. \$ -

Notes 1.- n/a

Summary of Reimbursable Expenses			
Units		\$/Unit	Total
Applicable Permit Fees (Florida Department of Environmental Protection, Fire Dept.)			
			Subtotal of Permit Fees
IG of .25% (if applicable) =			Reimbursable Expense & I.G. \$ -

Notes 2.- For invoices where Permit Fees are billed, receipts must be submitted.

Proposal Summary			
Company	Discipline		Total
Stantec	Civil		\$160,637.00
Longitude	Survey		\$34,120.00
GCES Engineering Services, LLC.	Geotechnical		\$4,948.00

Total of Labor, Direct Expenses, Reimbursable Expenses and I.G. \$199,705.00

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APPENDIX B

SURVEY PROPOSAL



Friday, February 08, 2019

VIA EMAIL: dave.clarke@stantec.com
Foster Road

Dave Clarke, PE, MSCE, CFM
Project Manager
Stantec
901 Ponce de Leon Boulevard, Suite 900
Coral Gables, Florida 33134

RE: Surveying services for Foster Road, City of Hallandale, Florida

Dear Mr. Clarke,

Pursuant to your request regarding a fee estimate for Surveying and Mapping services for the above-referenced project, LONGITUDE SURVEYORS, LLC (LS) is pleased to submit the following proposal for your consideration.

A. Scope of Work:

Longitude will perform a Topographic, Drainage Survey, and SUE (Soft Digs) to include the following tasks:

- Right-of-Way and property lines for the project area will be shown graphically.
- A graphical baseline will be created and included.
- Location of all overhead and ground utilities, sidewalks, curb and gutters, paved roads, driveways, light poles, power poles, fire hydrants, fences, signs, manholes, catch basins, valves/valve boxes, and any other above-ground improvements within the Survey limits.
- Longitude will only locate all trees and palms. A tree survey is not a part of this proposal.
- Elevations will be taken equivalent to a 100-foot grid.
- Longitude will survey 100 feet in each direction at every intersection.
- A digital terrain model (DTM) will be provided.
- Longitude will collect rim elevations, bottom elevations and inverts of all drainage and sanitary structures. LS will attempt to determine pipe diameters and material of all drainage and sanitary structures within the Survey limits.
- LS will set TBM's outside the project limits, in locations where they can be used by the contractor during construction.
- All control points will be established with Northing and Easting coordinates referenced to the Florida State Plane Coordinate System, based on the North American Datum of 1983/2011 and elevations referenced to NAVD88.
- All elevations will be referenced to the National American Vertical Datum of 1988 (NAVD88).
- Longitude will Survey utility locates and 10 soft digs more or less in the area shown in yellow along Foster Road per attached Exhibit provided by Client.

B. Deliverables:

LS will deliver signed and sealed paper copies of the resulting Survey, PDF and CAD file.

C. Survey Limits:

The main corridor will be along Foster Road, between NW 10 Avenue and NW 4 Avenue. Along with a portion of NW 8 Avenue, between Foster Road and NW 9 Street. NW 9 Street, between NW 9 Avenue and NW 8 Avenue, City of Hallandale, Florida, as per attached Exhibit provided by Client.

D. Fee Schedule:

- | | |
|---|--------------------|
| 1. Topographic Survey in the area delineated in yellow on attached Exhibit: | \$26,200.00 |
| 2. Ten (10) soft digs within the survey limits: | <u>\$ 7,920.00</u> |
| TOTAL LUMP SUM FEES: | \$34,120.00 |

*Ten (10) soft digs within the survey limits \$10,000.00 is broken down as follows:

- | | |
|--|--------------------|
| • SUE Coordinator: Coordinating MOT, lane closures, field operations and QA/QC (\$150.00 per hour x 8 hours) | \$ 1,200.00 |
| • 2-Person Designating Crew (\$140.00 per hour x 8 hours) | \$ 1,120.00 |
| • 3-Person SUE Crew (\$180.00 per hour x 20 hours) | \$ 3,600.00 |
| • 2-person Flagger crew (\$100 per hour x 20 hours) | <u>\$ 2,000.00</u> |
| • Total SUE labor for 10 holes inside the Right of Way | \$ 7,920.00 |

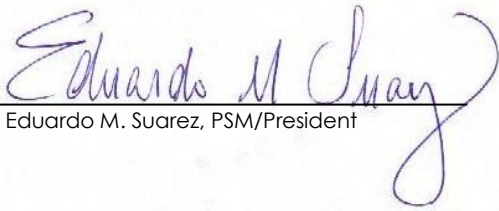
I agree that by signing below "I APPROVE AND ACCEPT" this Proposal as a legal binding contract.

(Authorized Signature)

(Typed or printed name)

Title: _____

Respectfully Yours,



Eduardo M. Suarez, PSM/President

SURVEY LIMITS



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APPENDIX C

GEOTECHNICAL PROPOSAL

February 4, 2019

Dave Clarke , P.E., MSCE, CFM
Project Manager
Stantec
901 Ponce de Leon Boulevard, Suite 900
Coral Gables FL 33134-3070

Direct: 305 445-2900 x 2296
Mobile: 786 502-0760
Fax: 305 445-3366
dave.clarke@stantec.com

Subject: Proposal/Agreement for Geotechnical Engineering Services
 Proposed 12" Water Main
 City of Hallandale, Florida
 GCES Proposal No. P10-0219004

Dear Dave:

GCES Engineering Services, LLC (GCES) is pleased to present this proposal/agreement for performing geotechnical engineering services for the above referenced project.

PROJECT INFORMATION

Our understanding of this project is based on an email dated January 31, 2019 provided by Mr. Dave Clarke , P.E. GCES understands the project involves the installation of a 12" water main within the City of Hallandale. It is also our understanding that the 12" main will be installed along the following roads:

- Foster Road between NW 9th Avenue to NW 4th Avenue,
- NW 9th Street from NW 9th Avenue to NW 8th Avenue
- NW 8th Avenue from NW 9th Street to Foster Road.

Along Foster Road, the watermain will be installed along the northwest travel lanes.

Cross sections were not provided when this proposal was made; however, we anticipate that the proposed construction method will consist of cut and cover (open cut) method to invert elevation of about 12 feet below existing grades with a minimum soil cover of about six feet. If the information herein is not accurate, please inform us immediately.

Stantec
Proposed 12" Water Main
GCES Proposal No. P10-0219004

Based on your request for proposal, the information provided and our understanding of the project, we propose the following scope of work and fee schedule.

SCOPE OF SERVICES

The purpose of the geotechnical services is to obtain subsurface soil data to characterize subsurface conditions and evaluate force main pipe excavations. These services will include field and laboratory testing programs. The field program will consist of providing the following services:

- Site Reconnaissance: A geotechnical engineer will conduct a site reconnaissance prior to the subsurface exploration. The site reconnaissance will note surface features that may impact or require consideration regarding the planned subsurface exploration, along with features indicative of general geotechnical conditions that may be encountered at the site.
- Subsurface Exploration: GCES will perform a total of six Standard Penetration Test (SPT) borings to depths of 15 feet below ground surface below the existing ground surface. We will perform four borings along Foster Road between NW 9th Avenue to NW 4th Avenue, one boring along NW 9th Street from NW 9th Avenue to NW 8th Avenue and one boring along NW 8th Avenue from NW 9th Street to Foster Road for a drilling program 90 lineal foot.
- Sampling: Sampling of the test borings will be conducted in general accordance with ASTM D1586 standards. Continuous samples are typically obtained in the top 10 feet, and one sample is generally obtained every 5 feet for the remaining depth of the boring. GCES will store the samples in our laboratory facility for a period of 6 months after field work completion. After 6 months, we will dispose the stored samples.

Groundwater levels measured during the field investigation will be noted in the boring logs. Subsurface conditions may be encountered which merit alterations of the field borings and/or sampling programs described above. We will discuss any unfavorable soil conditions encountered with you and together determine the appropriate course of action. Materials encountered at the test locations will be identified in the field, from SPT Spoon sampling brought to the surface by the drilling process. Upon completion of drilling the borings and observation of groundwater levels the boreholes will be backfilled with soil cuttings.

Site Access and Boring Locations

We will contact Sunshine State One-Call of Florida (SSOCOF) regarding location of utility lines at the project site. By state law, the utility locators have a minimum of two full business days to locate and mark utilities prior to commencing of drilling. GCES will not assume any responsibility from failure to locate an utility properly or inaccurate and/or incomplete information by the utility locators.

Stantec
Proposed 12" Water Main
GCES Proposal No. P10-0219004

This proposal is based on the boring locations being accessible to a conventional truck mounted drill rig without any clearing being necessary, no permit is required to perform our field work and the work can be performed during normal business hours.

The boring locations will be marked in the field by GCES personnel using layout procedures. Please note that we may be required to shift our planned boring locations depending upon utility locations at the planned boring locations. The surveying of the boring locations and elevations is not included in the geotechnical scope of work. Approximate elevations can be estimated from a provided topographic site plan. If a specific elevation reference is desired, then it will be necessary to survey the borings, the scope of which has not been included in this proposal.

Traffic Control

Traffic Control may be necessary for this project. If required, the field work will be coordinated to try and minimize the amount of traffic interruption. Flagmen, barricades, variable message boards police officer and/or directional arrows, if needed, will be used to allow continuous traffic flow.

The standards of practice that will be used for Maintenance of Traffic (M.O.T.) will be obtained from the FDOT Design Standards. If permit is required to perform our exploration, we will discuss this requirement with you and together determine the appropriate steps to obtain the permits.

Laboratory Evaluations

Moisture and organic content tests and classification tests (i.e. grain size analysis, #200 sieve wash) will be performed on representative split-barrel samples to aid in classification. Soil samples will be visually classified in general accordance with the Unified Soil Classification System (USCS). Laboratory testing on rock samples is not included in our scope of services.

Engineering Analysis and Report

After completion of the field and laboratory testing programs, the data and conditions will be analyzed and a report will be prepared by or under the supervision of a registered professional engineer in the state of Florida. This report will contain the following:

- A brief review of our test procedures and the results of testing conducted;
- A summary of the area and site geologic conditions;
- Review of the county soil survey map
- Our assessment of the suitability of on-site soils for use as structural fill;
- Backfill placement and pipe bedding recommendations;
- Provide geotechnical design parameters (i.e. unit weights, angle of friction and earth pressure coefficients, where applicable) for design of temporary shoring system, thrust blocking and/or coefficient values for the design of restrained joints. The soils parameters will be estimated from the results of the test borings and based on our experience on soil/rock conditions in South Florida;
- Anticipation of groundwater control; and

Stantec
Proposed 12" Water Main
GCES Proposal No. P10-0219004

- Review field data, and then evaluate said data to provide recommendations for pipe installation and trench excavations based on the anticipated construction and boring results. Recommendations will include, shoring and shielding general procedures, trench backfill, groundwater considerations and allowable bearing pressures and anticipated settlements for the proposed pipe.

Two bound signed and sealed and one unbound copies of the geotechnical exploration report will be provided.

COMPENSATION

Based on a single mobilization of the required personnel to and from the site, and the work scope outlined herein and assuming that we will perform the study in a continuous fashion, we will perform the geotechnical engineering services as outline below:

<i>Field Work, Laboratory Testing And Geotechnical Engineering Services (lump sum).....</i>	<i>\$3,998.00</i>
<i>Maintenance of Traffic (MOT) During The Drilling Operations.....</i>	<i><u>\$950.00</u></i>
TOTAL.....	<u>\$4,948.00</u>

If poor subsurface conditions are encountered which warrant additional work we will contact you to discuss the conditions and together determine how best to proceed. Unless otherwise instructed, invoices will be submitted. GCES invoice will be submitted to your attention at the above address upon completion of the proposed services. The fee is valid for ninety (90) days from the date of this proposal. If the assumptions listed herein are not valid, there may be additional charges.

SCHEDULE

Services will be initiated upon receipt of a written notice to proceed. Once we have received your written notice to proceed, we anticipate the field services will be completed within 1 to 2 working days assuming that we will be allowed to perform the field work as a continuous effort and normal weather conditions; and that underground utilities are cleared by the locating services in a timely fashion. The geotechnical report should be available within approximately five to ten working days after the field work is complete.

ADDITIONAL SERVICES

Adjustments to the scope of services described above may be necessary if additional project information related to our work are altered. If you would like us to perform additional services beyond the scope describe above, let us know and we will issue a short Supplemental to the Agreement form, or Supplemental Proposal, which outlines the additional work to be performed and the associated fees.

Stantec
Proposed 12" Water Main
GCES Proposal No. P10-0219004

CLOSING

This proposal may be accepted by executing the signature page of this proposal and returning an executed copy to GCES. The terms, conditions and limitations stated in the attached Agreement for Services (and sections of this proposal incorporated therein), shall constitute the exclusive terms and conditions and services to be performed for this project. Once the signature page is signed and received by GCES, the client will pay an initial retainer fee and commencement of the work will begin.

GCES Engineering Services, LLC. appreciates the opportunity to present this proposal. We look forward to working with you on this and future projects.

Respectfully,

A handwritten signature in blue ink, reading "Alejandro R. Montenegro". The signature is fluid and cursive, with a long horizontal flourish extending to the right.

Alejandro R. Montenegro, PE
President/CEO

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APPENDIX D

ESTIMATED OPINION OF PROBABLE COST OF CONSTRUCTION

PRELIMINARY ENGINEERS OPINION OF PROBABLE COST OF CONSTRUCTION

RFP #FY 2013-2014-006 Continuing Engineering Services - Hallandale Beach

Furnishing and Install 12-in PVC Water Main along Foster Rd

By: LF
 Check By: DC
 Date: 2/8/2019
 Revised: 2/8/2019

ITEM	DESCRIPTION	UNITS	QUANTITY	UNIT PRICE	EXTENDED COST
12" PVC Water Main & Fittings					
1	F&I 12" Pipe	LF	3,250	\$ 85.00	\$ 276,250.00
2	F&I 8" Pipe	LF	2,420	\$ 75.00	\$ 181,500.00
3	F&I 6" Pipe	LF	350	\$ 65.00	\$ 22,750.00
4	Abandon exist. 6" WM grout filled	LF	3250	\$ 15.00	\$ 48,750.00
5	F&I 2" FVO	EA	11	\$ 3,500.00	\$ 38,500.00
6	F&I 2"ARV	EA	11	\$ 3,500.00	\$ 38,500.00
7	F&I 12" Gate Valve	EA	10	\$ 2,300.00	\$ 23,000.00
8	F&I 8" Gate Valve	EA	20	\$ 1,800.00	\$ 36,000.00
9	F&I 6" Gate Valve	EA	7	\$ 1,300.00	\$ 9,100.00
10	F&I 12" Fittings	EA	8	\$ 65.00	\$ 520.00
11	F&I 8" Fittings	EA	40	\$ 55.00	\$ 2,200.00
12	F&I 6" Fittings	EA	7	\$ 45.00	\$ 315.00
13	F&I 20"x12" Tapping Sleeve and Valve	EA	1	\$ 16,000.00	\$ 16,000.00
14	Furnish Materials and Perform 8" Cut in connection (Solid Sleeve)	EA	2	\$ 8,000.00	\$ 16,000.00
15	Furnish Materials and Perform 6" Cut in connection (Solid Sleeve)	EA	5	\$ 6,000.00	\$ 30,000.00
16	F&I Fire Hydrant	EA	7	\$ 5,000.00	\$ 35,000.00
17	Remove Fire Hydrant	EA	4	\$ 750.00	\$ 3,000.00
18	F&I Service Lines w/ water meters	EA	50	\$ 1,500.00	\$ 75,000.00
19	Manhole Adjustment	EA	17	\$ 2,500.00	\$ 42,500.00
20	Pavers Restoration	SY	690	\$ 50.00	\$ 34,500.00
21	1" Milling	SY	15634	\$ 3.00	\$ 46,902.00
22	1" Asphaltic Concrete Surface Course	SY	15634	\$ 8.00	\$ 125,072.00
23	Pavement Markings Restoration	LS	1	\$ 15,000.00	\$ 15,000.00
24	Concrete Sidewalk Restoration	LS	1	\$ 15,000.00	\$ 15,000.00
25	Concrete Curb and Gutter Restoration	LS	1	\$ 5,000.00	\$ 5,000.00
26	Sod Restoration	LS	1	\$ 3,000.00	\$ 3,000.00
27	Asphalt Driveway Restoration	LS	1	\$ 7,500.00	\$ 7,500.00

Subtotal **\$ 1,146,859.00**

Maintenance of Traffic	percent of construction	5.0%	\$ 57,342.95
Mobilization	percent of construction	5.0%	\$ 57,342.95
Contingency Fund	percent of construction	10.0%	\$ 114,685.90

Subtotal Construction Allowances **\$ 229,371.80**

Total Estimated Cost of Utility Work	\$1,376,230.80
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