

April 29, 2019

Mr. James F. Sylvain, P.E.  
Assistant Director Public Works/Utilities  
City of Hallandale Beach  
630 NW 2<sup>nd</sup> Street  
Hallandale Beach, Florida 33009

RE: **SCHAFFER CANAL - HALLANDALE BEACH, FLORIDA  
BOUNDARY, TOPOGRAPHIC & HYDROGRAPHIC SURVEY  
CTA PROPOSAL NO. 2018-T04.274**

CRIVEN THOMPSON



**& ASSOCIATES INC.**

Engineers  
Planners  
Surveyors  
Landscape Architects

Dear Mr. Sylvain:

The firm of Craven Thompson & Associates, Inc. is pleased to provide you with the following proposal for professional surveying services for the above referenced project.

Specifically, we propose to provide the following:

**I. SURVEYING SERVICES**

- 1.1 Boundary / Topographic / Hydrographic Survey (CTA Task No. 11050)  
Prepare boundary, topographic and hydrographic canal survey for the entire length of the Schaffer Canal from the outfall located south of SW 11<sup>th</sup> Street/NE 215<sup>TH</sup> Street to the north limits, immediately east of SW 4<sup>th</sup> Avenue (approximately 2,800 lineal feet) as depicted on the attached Exhibit A. This survey will meet all of the current surveying requirements of the Board of Professional Surveyors and Mappers of the State of Florida, as defined in Chapter 5J-17.050 - .052, Florida Administrative Code. **This survey will require the City's assistance in notifying all property owners that survey crews will need safe access to their backyards along the canal banks identified on Exhibit 'A'**
- The survey will include the recovery of enough boundary and/or right-of-way monumentation, in order to tie down the canal and cross-section locations.
  - The survey will include the creation of a base map of the rights of way, lots and parcels immediately adjacent to the canal based on the recorded plats. The canal right-of-way lines along the banks will be tied to survey monumentation within the blocks next to the canal being surveyed.
  - The location of above-ground, visible semi-permanent improvements including seawalls, culverts, road crossings, drainage outfalls, concrete slabs, docks, edge of water, top of bank, fences, sprinkler suction lines, and trees 4" or larger measured at breast height. Trees will be identified only with diameter and common name if known.

3563 N.W. 53rd Street  
Fort Lauderdale, FL 33309-6311  
(954)739-6400  
Fax (954) 739-6409

- Hydrographic data collection will be performed using sounding equipment tied to Global Positioning System (GPS) location. In the areas with trees obstructing the GPS data collection and that are too shallow to use sounding equipment, standard survey methods will be used to obtain elevations of the canal.
- Cross-sections will be depicted at 100-foot stations along the canal 10 feet beyond top of bank/top of seawall and/or canal right-of-way line to canal right-of-way line (whichever is further). The cross-section elevations will contain the 10-foot limit, right-of-way, top of bank and or top of seawall, all changes in grades, edge of water, and every five (5) feet under water.
- The horizontal datum for this Project will be relative to State Plane, Florida East Zone, NAD 83(90) HARN, in US Survey Feet.
- Elevations will be relative to North American Vertical Datum of 1988 (NAVD88), and based on individual benchmark level loops to each upland cross-section location, from National Geodetic Survey (NGS), or Florida Department of Transportation (FDOT) benchmarks.
- Obtain detailed locations and elevations of roadway crossings sufficient for design of culverts, pump station and control structure.
- The preparation of the survey in AutoCAD Civil 3D version 2017 or higher, drawing file format in plan view and cross-sections at 100-foot stations.
- **Access to the Canal Banks is critical to getting the information needed for redesign and will be based on the City notifications to all Property Owners that the Survey crews will need to be on their individual properties for the purpose of this survey and that all safety precautions (such as dogs) will need to be secured so the crews can work safely.**

*Lump Sum.....\$18,200.00*

**Approximate time of completion: six (6) to eight (8) weeks, weather permitting after receipt of Notice to Proceed.**

## **I. ENGINEERING SERVICES**

### **2.1 Final Engineering Plans (CTA Task No. 31030)**

Prepare Dredge/Grading Plans of the Schaffer Canal to include cross-sections and details for approximately 2,800 LF of canal. The plans will provide pre-post cross sections to determine dredging quantities as well as regrading of the banks to restore the canal to its original design, within practical reason. Task also includes cost estimates at milestone submittals and final contract documents of plans and technical specifications. Task does not include any structural components such as rebuilding existing walls, posts, lighting, hardscape features, etc. within the canal Right-of-way.

*Lump Sum .....\$27,850.00*

- 2.2 Prepare and Process On-site Engineering Permit Applications (CTA Task No. 31080)  
Prepare and process permit applications and supporting documents through appropriate state and local agencies including:
- Broward County Environmental Protection and Growth Management Department - Dredging
  - South Florida Water Management Division
  - US Army Corp of Engineers
  - City of Hallandale Beach
- Lump Sum..... \$18,500.00*
- 2.3 Meetings with Client, Architect and Agencies (CTA Task No. 31100)  
Prepare for and attend coordination meetings and conference calls regarding the proposed project. This task shall include meetings with the Client, local permitting agencies and the public.
- Lump Sum..... \$5,000.00*
- 2.4 Prepare Specifications and Bidding Assistance (CTA Task No. 31072)  
Prepare specifications detailing the proposed improvements, prepare responses to bid questions, assist in the preparation of Addenda, review bid documents for pricing and assist the City with Bidder award.
- Lump Sum..... \$6,500.00*

#### **ITEMS NOT INCLUDED**

##### **The following items are not included as part of this proposal:**

1. Structural Engineering Services.
2. Water and sewer service design.
3. Geotechnical Services
4. Construction Observation Services.
5. Environmental Services
6. Electrical Services
7. Maintenance of Traffic Plans.
8. Test holes.
9. Sketch and legal descriptions.
10. Landscape plans.
11. Reimbursables.

##### **The following is a list of items which are to be provided by Client:**

1. All permit fees and bonds.
2. All documents available in relation to the Schaffer Canal.

**Acceptance**

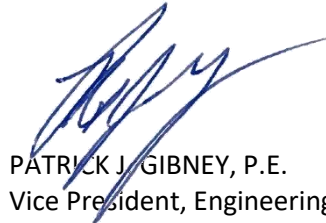
This proposal and fee schedules are based on acceptance within 90 days of the date of preparation. If not accepted by you within that time period, we reserve the right to re-evaluate the terms and conditions contained herein.

The above will be subject to the terms and conditions as specified in the Contract Documents. If the proposed work and fees contained herein are agreeable with you, please provide a Purchase Order and a Notice to Proceed.

Should you have any questions regarding the above, please do not hesitate to call.

Sincerely,

**CRAVEN THOMPSON & ASSOCIATES, INC.**



PATRICK J. GIBNEY, P.E.  
Vice President, Engineering

PJG/tg

**ACCEPTANCE OF PROPOSAL:** The above fees, terms, conditions, and specifications are satisfactory and are hereby accepted. You are authorized to do the work as specified. Payment will be made as outlined.

**THIS PROPOSAL ACCEPTED BY:**

\_\_\_\_\_  
Name & Title

\_\_\_\_\_  
Firm Name

\_\_\_\_\_  
Date

\_\_\_\_\_  
Telephone Number

\_\_\_\_\_  
Facsimile Number