

# DEGROVE

*SURVEYORS, INC*

July 29, 2014

Mr. Joe Wagner  
Taylor Engineering, Inc.  
Building 300, Suite 300  
10151 Deerwood Park Blvd.  
Jacksonville, FL 32256

Re: Millers Creek Special Dredging District, Jacksonville, FL

Dear Mr. Wagner:

The following is a proposal to complete a hydrographic survey of Millers Creek. The limits of the survey are depicted on the attached sketch.

The Scope of Services is as follows:

- The hydrographic Survey datum will be mean lower low water
- The hydrographic Survey will cover the entire project area including the mean low water line along the natural shoreline and structures
- The hydrographic Survey will not include the location of individual docks, boat lifts, etc.
- The hydrographic Survey will at minimum be performed along a basin centerline, as well as at 100 foot stations.
- Benchmarks related to the MLLW datum will be placed at the site.

The survey will be mapped in Autocad. A digital file and signed and sealed report will be provided.

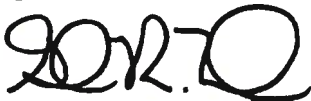
The survey will meet the requirements of the standards for surveying and mapping in the State of Florida and the specifications of Table 3-1 Minimum Performance Standards for Corps of Engineers Hydrographic Surveys for Navigation and Dredging Support Surveys with Soft Bottom as per the U. S. Army Corps of Engineers Manual for Hydrographic Surveys, Manual EM1110-2-1003, dated 1 Jan 02.

The fee to complete the survey will be \$6,500.00.

If this is acceptable, please have the party responsible for payment sign and return one copy.

Thanks you for the opportunity to submit this proposal.

Regards,



Gordon R. Niles, PSM, CH  
President

Accepted By: \_\_\_\_\_

Signature

Print Name and Title

Date

2131 CORPORATE SQUARE BLVD.  
JACKSONVILLE, FLORIDA 32216  
(904) 722 0400 • FAX (904) 722 0402

605 N.W. 53<sup>rd</sup> AVENUE • Suite A11a  
GAINESVILLE, FLORIDA 32609  
(352) 338-9667 • FAX (352) 338-9677

DEGROVE@DEGROVE.COM

## ARC SURVEYING & MAPPING, INC.

5202 SAN JUAN AVENUE, JACKSONVILLE, FL 32210  
PHONE (904) 384-8377 FAX (904) 384-8388  
WWW.ARCSURVEYORS.COM



23 July, 2014

Attn: Joe Wagner, P.E.  
Taylor Engineering, Inc.  
10151 Deerwood Park Blvd  
Jacksonville, FL 32256

Re: Millers Creek Hydrographic Survey  
Jacksonville, Florida

Mr. Wagner,

As requested, Arc Surveying and Mapping, Inc. (Arc) is providing a proposal for performing hydrographic surveying and mapping services within the planned project limits of Miller Creek as provided in the request for proposal.

- 1) **General Scope:** Arc will provide all equipment and labor resources necessary to research, locate and or establish the required site control, perform hydrographic surveys and identify the mean low water line.
  - a) **Horizontal Coordinate System and Vertical Datum:** Arc shall confirm and utilize as the horizontal datum the Florida State Plane Coordinate System, East Zone, North American Datum of 1983 (NAD83). Arc shall confirm and utilize as the vertical datum the National American Vertical Datum of 1988 (NAVD88) and display and reference results to Mean Lower Low Water (MLLW). The horizontal precision of the GPS control shall conform to Federal Geographic Data Committee, Geospatial Positioning Accuracy Standards - PART 4: Standards for A/E/C and Facility Management (FGDC-STD-007.4-2002), Second-Order, Class I for all control points. The vertical accuracy of the control points shall conform to FGDC-STD-007.4-2002 standards for Second-Order, Class II elevation difference accuracy standards for relative positioning techniques.
  - b) **Hydrographic Survey:** Hydrographic data acquisition will conform to the horizontal and vertical precision requirements outline in Federal Geographic Data Committee, Geospatial Positioning Accuracy Standards - PART 4: Standards for A/E/C and Facility Management (FGDC-STD-007.4-2002). Arc will follow the guidelines for collecting field data as outlined in the U.S. Army Corps of Engineers manual EM 1 110-2-1003 – Engineering and Design, HYDROGRAPHIC SURVEYING.
- 2) **Hydrographic Component:** Single beam data acquisition will be performed at sufficient coverage at 50 foot cross-section intervals performed along a baseline centerline within Miller Creek project limits. Sufficient data will be acquired in order to depict the mean low water line within the survey area.
- 3) **Fee Schedule:** A total lump sum fee of \$5,750 will be assessed for services rendered based on this proposal with the assumption that a NTP will be issued by November 1, 2014.
- 4) **Schedule of Deliverables:**
  - One 3-D CAD and one .pdf file containing bathymetry results.
  - One set of ASCII computer files containing the base DTM data.
  - One set of signed and sealed record drawings depicting the results of the hydrographic survey.

Arc Surveying and Mapping appreciates the opportunity to work with you on this project and are available to answer any questions or concerns you may have.

Sincerely,

Arc Surveying and Mapping

*Richard J Sawyer*

Richard J. Sawyer, PSM, Certified Hydrographer  
Vice President



July 30, 2014

Tamara Baker, P.E.  
Baker Klein Engineering, Inc.  
334 Walnut Street  
Jacksonville, FL 32206

Re: Millers Creek Special District Dredging Preparation, Jacksonville, FL — Bathymetric Survey Data Collection, Dredging Template Alternatives Analysis, and Dredging Volume Calculations

Dear Ms. Baker,

On behalf of Taylor Engineering, I am pleased to provide this proposal and letter agreement to the Millers Creek Special District for the above-referenced project. This project will help the Millers Creek Special Dredging District prepare for dredging of Millers Creek in Jacksonville, FL. Please see the attached figure for the limits of the project area.

As part of our proposed efforts, Arc Surveying & Mapping, Inc., as a subconsultant to Taylor Engineering, will collect bathymetric survey data from Millers Creek. Arc Surveying & Mapping understands that the Millers Creek Special Dredging District does not plan to initiate the bathymetric survey data collection until late November 2014, at the earliest, and Arc Surveying and Mapping has budgeted its services accordingly.

Following the collection of bathymetric survey data, Taylor Engineering will calculate the required dredging volume for the basin within the Millers Creek subdivision. Taylor Engineering will provide exhibits of up to three alternative channel alignments. The exhibits will indicate approximate dredging volumes.

The following scope of work addresses bathymetric surveying services and dredging volume calculations/exhibits only. Notably, the scope of work excludes preparation and submittal of permit drawings, construction drawings, and specifications. If these exclusions prove incorrect, we will submit a revised scope of work and budget to perform any necessary additional work.

— SCOPE OF WORK —

**TASK 1 Bathymetric Survey Data Collection and Verification**

Taylor Engineering will subcontract Arc Surveying & Mapping to provide a bathymetric survey along the centerline of the basin at 100-foot station intervals. The survey data will reference the North American Vertical Datum 1988 (NAVD). Arc Surveying & Mapping will provide signed and sealed surveys and digital copies of the bathymetric survey. Taylor Engineering will coordinate the timing of the survey and review the survey for completeness.

Deliverables: Signed and sealed bathymetric survey in hard copy (two full-size sets) and in digital format (AutoCAD and PDF files on CD)

I would greatly appreciate your proposal at your earliest convenience, however, please provide the scope by no later than close of business Thursday August 1. There is a board meeting tentatively scheduled for early August.

Regards,

**Joe Wagner, P.E.**

*Senior Dredging Engineer, Waterfront Group*



10151 Deerwood Park Blvd.

Bldg. 300, Suite 300

Jacksonville, FL 32256

Phone (904) 731-7040

Direct (904) 256-1365

Mobile (904) 252-4918

## **TASK 2 Dredging Volume Calculations**

Taylor Engineering will prepare AutoCAD-based, digital full-size exhibits of the basin within the Millers Creek subdivision, as depicted in the attached figure, Millers Creek Special Dredging District Project Area Dredging, Duval County, Florida. The exhibits will include photo-based sheets depicting the project areas. The exhibits will provide plan views and cross sections of existing conditions and the dredging template.

Taylor Engineering will calculate the required dredging volumes to reach a design channel depth of -5 feet mean lower low water (MLLW) for up to three maximum channel alternatives. Taylor Engineering will document the required dredging volumes on the exhibits.

Deliverables: Signed and sealed exhibits of the basin within the Millers Creek dredging areas in hard copy (two full-size sets) and in digital format (AutoCAD and PDF files on CD)

– END SCOPE OF WORK –

Taylor Engineering will perform the above-described scope of work for a fixed fee cost of \$14,261. The fixed fee includes the subconsultant's (Arc Surveying & Mapping) fee for performing the bathymetric survey (\$5,750).

Our terms and conditions for the proposed work are as follows. Taylor Engineering, Inc. will submit to the Millers Creek Special Dredging District monthly invoices, based on percent of work completed, for performance of the scope of work described above. The Millers Creek Special Dredging District will pay Taylor Engineering for the invoiced services within 30 days of the date of each monthly invoice. Payments not received within 30 days of the invoice date will include an additional 1½% per month late payment fee. The Millers Creek Special Dredging District shall submit payment to

Attn: Accounts Payable  
Taylor Engineering, Inc.  
P.O. Box 550510  
Jacksonville, FL 32255-0510

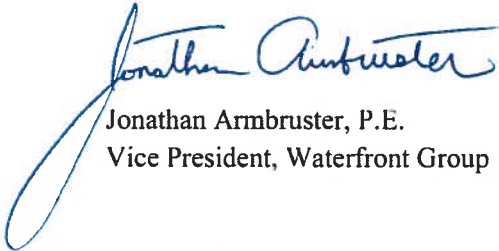
If you agree with the proposed scope of work, fee, and payment terms described herein, please execute this agreement with your signature (and witnesses) in the space below and return it to me. This agreement, upon execution, shall serve as the sole agreement between Taylor Engineering, Inc. and the Millers Creek Special Dredging District for the work described herein. Taylor Engineering's receipt of the executed agreement shall serve as the written notice to proceed.

This agreement becomes invalid if the Millers Creek Special Dredging District fails to return the executed agreement within 90 days from the date of this letter or alters the agreement in any way without Taylor Engineering's written concurrence. Thank you for this opportunity to serve the Millers Creek Special Dredging District. We look forward to working with you on this project.

Tamara Baker  
July 30, 2014  
Page 4 of 4

If you have any questions about this proposal, please contact Joe Wagner, P.E. at (904) 731-7040 or via email at [jwagner@taylorengeering.com](mailto:jwagner@taylorengeering.com) or me.

Sincerely,



Jonathan Armbruster, P.E.  
Vice President, Waterfront Group

On behalf of the Millers Creek Special Dredging District, the undersigned hereby accepts and agrees to the terms and conditions of this agreement.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Witness signature

\_\_\_\_\_  
Name (type or print)

\_\_\_\_\_  
Witness signature

\_\_\_\_\_  
Title

\_\_\_\_\_  
Date



LAND SURVEYORS

July 23, 2014

**Joe Wagner, P.E.**

*Senior Dredging Engineer, Waterfront Group*

Taylor Engineering, Inc.  
10151 Deerwood Park Blvd.  
Bldg. 300, Suite 300  
Jacksonville, FL 32256  
Phone (904) 731-7040  
Direct (904) 256 -1365  
Mobile (904) 252-4918

RE: Millers Creek

**Dear Joe,**

Thank you for the opportunity to prepare a proposal for you on the Millers Creek Project.

#### **Scope of work**

- Set Control in State Plane Coordinates
- Tie in the adjacent Subdivisions for mapping
- Hydrographic Survey datum is mean lower low water
- Hydrographic Survey must cover the entire project area including the mean Low water line along the natural shoreline and structures
- Hydrographic Survey does not include individual docks, boat lifts, etc.
- Hydrographic Survey must at minimum be performed along a basin centerline, as well as at 100 foot stations.



LAND SURVEYORS

Our fee for the above work will be a lump sum of **\$8,550.00**. Again, thank you for the opportunity and if you have any questions please do not hesitate to call me. We look forward to working with you on this project.

Sincerely,

*James D. Harrison, Jr.*

James D. Harrison, Jr.  
Registered Surveyor and Mapper No. 2647

/alm