



August 4, 2016

Consultant Proposal for Saga Bay 1.2 Sub-Basin Water Quality Improvement Project

Project: The Town of Cutler Bay requested a fee proposal for the stormwater design of the Saga Bay 1.2 sub-basin, located north of SW 198 Terrace, south of SW 196 Street, east of SW 81 Court and west of SW 78 Avenue. This project is part of a capital improvement program to improve the stormwater management system and treat runoff pollutants within this sub-basin.

The current drainage system in this sub-basin consists of isolated French Drains and Catch Basins. Roadside swales also provide some water quality pre-treatment and storage of roadway run-off. The existing drainage infrastructure in the Saga Bay 1.2 Sub-Basin does not discharge adequate runoff to meet the desired performance criteria adopted in the Town's Stormwater Master Plan. The capacity of the existing roadside swales and French Drains are not sufficient to discharge the volume of runoff and treat pollutants. Based on the Capital Improvement recommendations listed in the Town's Adopted Stormwater Master Plan, the Town will use the requested funding to: Install six (6) manholes; Install six (6) additional catch basins; replace three (3) existing catch basins; Install an additional 725 LF of 18" Pipe; and install an additional 250 LF of French Drain. Existing catch basins will be modified to provide sediment traps (sumps) and pollution retardant baffles to protect the French Drains. Weir structures will be installed prior to each outfall to restrict the discharge of pollutants to the Saga Bay Lake. Additional French Drain, Catch Basins, and/or manholes will provide water quality and water quantity treatment.

Deliverables

Topographic Survey to include:

- The survey will include the following, but not limited to; outfalls, sidewalks, edges of pavement, utilities, manholes, poles, fences, driveways, catch basins, trees and all aboveground improvements within the limits of the survey.
- Elevations will be taken equivalent to 50-foot intervals and will be referenced to the National Geodetic Vertical Datum 1929 (NGVD29).
- LS will provide the following for all drainage structures: rim elevation, inverts, pipe direction and material, when possible.
- R/W and property lines for the project area and adjacent properties will be included based on Public information available to the public. Title searches will not be performed.
- A graphical baseline will be created and included.
- The survey will be referenced to the Florida State Plane Coordinate System, East Zone, based on the North American Datum of 1983/2011.

Geotechnical Investigation to include:

- Identification of the existing ground water levels and estimated normal seasonal high ground water fluctuations.
- General location and description of potentially deleterious materials encountered in the borings which may have an impact on the proposed project.
- Field soil permeability results using SFWMD Constant Head "Usual Condition" Open Hole Test Method.
- General site preparation recommendations including the suitability of excavated soils for use as backfill.
- Environmental tests (pH, Sulfates, Chlorides, and Resistivity) on one soil sample.

The following services will be performed to achieve the above-outlined objectives:

- Request utility location services from Sunshine State One-Call (811).
- Obtained necessary permit with the Town of Cutler Bay for work within existing right of way (ROW). We assume that since this is a project for the Town of Cutler Bay, the permit fee will be waived.
- Set-up necessary MOT using FDOT Standard Index in order to perform proposed work.
- Perform two Standard Penetration Test (SPT) borings, each advanced to a depth of 20 feet within the project limits. Samples will be collected and Standard Penetration Test resistances will be measured at approximate intervals of two feet for the top ten feet and at approximate intervals of five feet thereafter
- Perform a total of two SFWMD percolation/exfiltration tests to a depth of 15 feet below the existing ground surface.
- Report the results of the field exploration and engineering analysis. The results of the subsurface exploration will be presented in a written letter report signed and sealed by a professional engineer specializing in geotechnical engineering.

Contract Documents

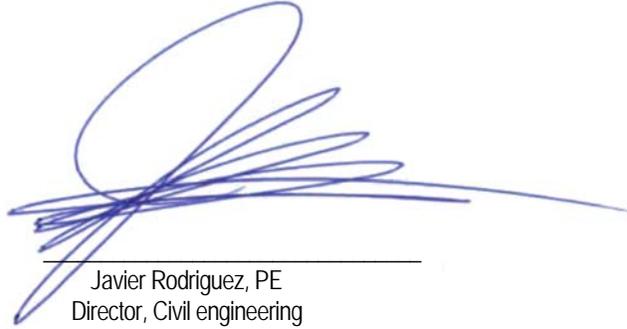
The plans will be completed on a standard FDOT 11"x17" format and will be consistent with the latest Federal, State and Town standards and specifications the plans shall include the following sheets:

- Key Sheet
- Existing Conditions / Demolition sheet
- General Notes
- Tabulation of quantities Sheets
- Plan Sheets & Profiles
- Drainage Structure Sheets
- Miscellaneous Details Sheets
- Miscellaneous Drainage Details
- Traffic Control
- Stormwater Pollution Prevention Plan (SWPPP)

The scope will also include Opinion of Probable Costs as per FDOT Design quantities and Estimates, assist in all required permit applications, provide plan revisions as necessary to address permitting comments until all required permits are obtained. Post Design Services are not included in this proposal.

FEE

The total lump sum fee for this project will be ***\$ 59,453.00***. A Fee breakdown is attached.

A handwritten signature in blue ink, consisting of a large loop at the top and several horizontal strokes below it.

Submitted by:

Javier Rodriguez, PE
Director, Civil engineering

FEE PROPOSAL SUMMARY
R.J. BEHAR & COMPANY
PROJECT DESCRIPTION: SAGA BAY 1.2 SUB BASIN

ACTIVITY	PROJECT MANAGER		SENIOR ENGINEER		DESIGN ENGINEER		CADD TECHNICIAN		MANHOURS BY ACTIVITY	TOTAL COST BY ACTIVITY
	MAN HOURS	\$ 175.00 HOURLY RATE	MAN HOURS	\$ 157.00 HOURLY RATE	MAN HOURS	\$ 132.00 HOURLY RATE	MAN HOURS	\$ 90.00 HOURLY RATE		
DESIGN	7	\$ 1,286.25	37	\$ 5,769.75	43	\$ 5,627.16	60	\$ 5,424.30	147	\$ 18,107.46
ROADWAY PLANS	13	\$ 2,187.50	63	\$ 9,812.50	73	\$ 9,570.00	103	\$ 9,225.00	250	\$ 30,795.00
SIGNING PLANS	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -
	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -
	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -
TOTAL	20	\$ 3,473.75	99	\$ 15,582.25	115	\$ 15,197.16	163	\$ 14,649.30	397	\$ 48,902.46
LABOR FEE										\$ 48,902.46
DIRECT REIMBURSABLES										\$ 200.00
SUBCONSULTANTS										
SURVEY: LONGITUDE										\$ 6,500.00
GEOTECH: Arehna Engineering										\$ 3,850.00
TOTAL:										\$ 59,453.00

DESIGN**R.J. BEHAR & COMPANY****PROJECT DESCRIPTION: SAGA BAY 1.2 SUB BASIN**

TASK	BASIS OF ESTIMATE	NO. OF UNITS	HRS/ UNIT	NO. OF SHEETS	TOTAL HOURS	REMARKS
Field Review	EA	1	8		8	2 people 4 hours
Data Collection	L.S.	1	8		8	Maps, Previous reports, permits, etc
Drainage Design	L.S.	1	24		24	Calculations, Frech Drains
Drainage Report	L.S.	1	24		24	
Drainage Permit (DERM) - ERP	L.S.	1	16		16	Miami Dade County
Quantities	L.S.	1	24		24	
Cost Estimate	L.S.	1	8		8	1 Cost Estimate
Utilities Coordination	L.S.	1	18		18	
Utility Conference	L.S.	1	4		4	
Specifications/Bid Package	L.S.	1	10		10	
	L.S.	1	0		0	
Meetings	EA	3	1		3	1 Pre application, 2 Coordination Mtgs
SUBTOTAL					147	

