

**AMENDMENT NO. 2 TO THE AGREEMENT FOR ENGINEERING DESIGN SERVICES
FOR THE INDIAN CREEK DRIVE/STATE ROAD (SR) A1A, 26 STREET TO 41
STREET - FLOODING MITIGATION PROJECT**

This Amendment (Change Order) No. 2, is made and entered as of this 15 day of ____August____, 2017 by and between the **CITY OF MIAMI BEACH**, a municipal corporation existing under the laws of the state of Florida, having its principal offices at 1700 Convention Center Drive, Miami Beach, Florida 33139 ('City), and **RIBBECK ENGINEERING, INC.**, having its principal offices at 14335 SW 120 St. #205, Miami, Florida 33186 (hereinafter referred to as Consultant).

WHEREAS, on September 27, 2015, the City experienced severe tidal flooding caused by King Tides of 1.12 feet above mean high water, in the area of Indian Creek Drive, from 26th to 41st Streets, which severely impacted both pedestrian and vehicular traffic for several days; and

WHEREAS, to avoid continued tidal flooding and severe flooding caused by high intensity rainfall events, the City, in conjunction with FDOT, must implement, as expeditiously as possible, infrastructure improvements which will include a new storm water drainage system, pump station, and seawall; and

WHEREAS, at its March 9, 2016 meeting, the City Commission adopted Resolution No. 2016-29332, approving an agreement between the City and Florida Department of Transportation (FDOT) for the cost sharing of a construction project on Indian Creek Drive from 26th to 41st Streets, for certain infrastructure improvements that will include a new storm water drainage system pump station and seawall; improvements to the existing roadway, curbs, gutters and sidewalks, which will be elevated to meet new flood elevation requirements; and improvements to driveways, light poles, signals, signage and pavement markings, which will be replaced to match the new roadway alignment and configuration; and

WHEREAS, at the June 8, 2016 meeting, the City Commission authorized the award of a Professional Service Agreement with Ribbeck Engineering, Inc., in the amount of \$407,851, with a scope of services which consists of developing a Design Criteria Package (DCP) and conceptual plans for the design build construction of approximately 0.85 miles of Indian Creek Drive, with the conceptual plans and DCP to be developed in accordance with FDOT design requirements and City of Miami Beach requirements; and

WHEREAS, the City Manager continues to believe that the findings certified in Resolution No. 2016-29332 continue to exist, and that given the current condition of Indian Creek Drive, and the periodic flooding and closure of the road due to said flooding issues, there are extensive existing and potential future community hardships, including serious impacts to quality of life issues, to justify the necessity of beginning construction on Indian Creek Drive immediately; and

WHEREAS, the conditions in the area are so drastic and will only worsen if the work is postponed in order to go through a three (3) to six (6) month competitive procurement process; and

WHEREAS, on April 26, 2017, in furtherance of the initiative to protect residents from tidal flooding within the City of Miami Beach, the Mayor and City Commission

approved Resolution No. 2017-29839, authorizing Amendment No. 1 to the Agreement with Ribbeck Engineering, Inc., to provide for an expanded scope of work for the preparation of a set of interim construction plans from 25th to 26th Street and 26th to 41st Street, including side streets along the entire Project limits of approximately 1.7 miles of roadway; with such interim plans to adhere to FDOT design criteria as well as City of Miami Beach contract requirements; and

WHEREAS, in Resolution No. 2017-29839, due to the foregoing tidal flooding conditions and the urgent need for completion of the Project, and due to the fact that Ribbeck Engineering was already performing work on the Project, the City Manager, in assessing the totality of factors giving rise to this situation, certified to the City Commission, and the City Commission affirmed, that a public emergency existed and that it was in the best interest of the City to waive competitive bidding, as the City would greatly benefit from utilizing Ribbeck to avoid coordination problems and construction delays; and

WHEREAS, pursuant to the City's cost sharing agreement with FDOT for the Project, FDOT provided the City with notice of its concurrence to use of FDOT funds for its portion of the costs associated with the scope of work that Ribbeck Engineering performed under Amendment No. 1; and

WHEREAS, the City's funding agreement with FDOT stipulates that the Project shall be implemented in two (2) construction phases, namely (1) the Interim Phase (which is currently underway), and which includes the underground drainage construction component, including drainage pipes ranging in size up to 72 inches in diameter, drainage structures, the pump station structure and roadway drainage system reconstruction; and (2) the "Ultimate Phase," which includes the roadway reconstruction component, raising the roadway and harmonization to final grade; and

WHEREAS, with respect to the Ultimate Phase design and construction work, FDOT and the City previously contemplated for the Ultimate Phase work to be executed by a design-build team selected through a competitive bid procurement process; and

WHEREAS, the project Interim Phase has been under construction for almost one year, and due to lessons learned during this process, as well as unique conditions and constraints applicable to this Project, FDOT and City staff believe that, rather than proceed with a design/build construction methodology, the Ultimate Phase work would be better accomplished by first completing the design plans for the Project, and then selecting a contractor, via an Invitation to Bid process, to perform the construction work; and

WHEREAS, in furtherance of the initiative to expedite the construction of the Ultimate Phase and protect residents from tidal flooding within the City of Miami Beach, the Public Works Department is requesting an additional scope of work from Ribbeck Engineering, Inc., for the preparation of a set of Ultimate Phase construction plans from 25th to 41st Street, including side streets along the entire Project limits of approximately 1.7 miles of roadway; the construction plans will include detailed roadway, traffic control plans and analysis, seawall plans, drainage analysis and plans, signing, pavement markings, lighting and signalization components, and related improvements, and the scope will include a design variations memorandum and reports including crash data analysis and benefit cost ratios which are required on FDOT projects, and which will adhere to FDOT design criteria as well as City of Miami Beach contract requirements;

and

WHEREAS, the Ultimate Phase construction plans are required in order to be able to complete the electrical and mechanical design of the pump station which will reduced the time and cost of temporary pumps. Only the design and construction of the pump station structures were included as part of the interim design; and

WHEREAS, the cost proposal for the Ultimate Phase scope of services, including final construction plans, is in the amount of \$1,056,347.77, plus an Owner's Contingency of fifteen percent (15%), in the amount of \$158,452.17, for a total amount of \$1,214,799.94 for the Ultimate Phase work; and

WHEREAS, a scope of work is attached as Exhibit 1, and the proposed hours of effort for the work is attached as Exhibit 2 thereto, and provides that Ribbeck Engineering and subcontractors will perform the work under the same hourly rates and percentages for overhead and profit as in its contract with FDOT; and

WHEREAS, due to the foregoing tidal flooding conditions and the urgent need for completion of the Project, and due to the fact that Ribbeck Engineering is already performing work on the Project, the City Manager, in assessing the totality of factors giving rise to this situation, believes there is ample support to find and certify to the City Commission that the public emergency, as certified in Resolution No. 2016-29332 and Resolution No. 2017-29839 continues to exist, and that it is in the best interest of the City to waive competitive bidding, as the City would greatly benefit from utilizing Ribbeck to avoid coordination problems and construction delays; and

WHEREAS, the City will be funding the design costs set forth in this Amendment No. 2, at its sole expense, pursuant to the cost-sharing agreement with FDOT.

NOW THEREFORE, in consideration of the mutual promises and conditions contained herein, and other good valuable consideration, the sufficiency of which is hereby acknowledged, the City and Consultant hereby agree to amend the Agreement as follows:

1. ABOVE RECITALS.

The above recitals are true and correct and are incorporated as part of this Amendment.

2. MODIFICATIONS.

I. Article 1, Section 1.1 of the Agreement, as amended, is hereby further amended to include ProCon Engineering, Inc. and MEP Engineering Consultants, as an approved Sub-consultant for the Project, as part of the Definition for Consultant.

II. Article 7, Section 7.1 of the Agreement, as amended, is hereby further amended as follows:

In addition to the Consultant's "Lump Sum" fee specified for the Services under the Agreement, and the additional "Lump Sum" fee for the Services authorized in Amendment No. 1, the City shall pay the Consultant, for the "Ultimate Phase" scope of Services in this Amendment No. 2 to be performed

as part of the Basic Services, the lump sum amount of \$1,056,347.77, for an overall contract amount of \$2,327,370.69 collectively for the project.

In addition, the City has established a separate "Owner's Contingency" or "City's Contingency" for the Ultimate Phase, in the amount of \$158,452.17, for the City's use as set forth herein, for a total amount (including Owner's Contingency) in the amount of \$2,572,140.05.

Owner's Contingency shall be available to the City, at the sole discretion of the Contract Administrator, to cover and/or defray Additional Services, additional expenses relative to design and construction of the Project not included in or reasonably inferable from the scope of work, or for additional changes or adjustments to work items deemed desirable by the City to be included as part of the Contract Documents, or for additional costs expressly chargeable to the City or for which the City is responsible pursuant to the Contract Documents.

The Consultant shall have no entitlement whatsoever to any amounts in the Owner's Contingency, and the City is under no obligation to assign any monies from the Owner's Contingency to the Consultant. Use of funds from Owner's Contingency shall be requested through the Additional Services process described in Article 5 and must be approved in writing by the Contract Administrator or City Manager prior to initiating any related work.

Any unused amounts in the Owner's Contingency shall accrue solely to the City. Consultant shall have no entitlement whatsoever to any unused Owner's Contingency amounts.

III. Schedule A of the Agreement, as amended, is hereby further amended to include the following, as part of the scope of services (Basic Services):

In addition to the Scope of Services described in Schedule A of the Agreement and Amendment No. 1, the Consultant shall perform the following work as part of the Basic Services, as set forth below and as delineated herein as follows:

Task #10: Prepare set of plans and design documents for Intent to Bid (ITB)

Roadway Analysis and Plans:

- Roadway full reconstruction analysis and plans
- Final cross sections
- Final Quantities and Cost Estimate
- Summary of Pay Items
- Summary of Quantities
- Intersection grading details
- Traffic Control Plans for final construction
- Back of sidewalk profiles and special driveway profiles
- Roadway analysis and detail production for harmonization details of 32 properties including grading
- Field reviews for harmonization of 32 properties

Drainage Analysis and Plans:

- Design of 112 additional Storm Drain.
- Plans production of 112 additional drainage structures placed in cross sections.
- 7 Summary of drainage structures sheets.
- 13 additional drainage details: (1) type C modified, (2) manhole riser, (3) manhole riser in line, (4) driveway inlet single, (5) driveway inlet double, (6) trench drain, (7) best management practice, (8 - 11) additional pump station details, (12) pipe bedding & (13) manatee grate.
- Drainage analysis for property harmonization (yard drains) SWPPP sheets.
- Drainage Maps
- Drainage Report for final conditions

Signing and Pavement Markings Analysis and Plans:

- Signing and pavement markings analysis and plans for final roadway reconstruction as per MUTCD and FDOT criteria.

Signalization Analysis and Plans:

- Signalization analysis and plans for final roadway reconstruction for the following intersections: (1) Indian Creek Dr. at 29 Street, (2) Indian Creek Dr. at 3900 Block, and (3) Indian Creek Dr. at 41 Street.

Task #11 - Post Design Services for Roadway, Drainage, SPM and Signalization**Plan Revisions to RFC Plan Sets for the following components:**

- Roadway and Traffic Control Plans
- Drainage
- Signing and Pavement Markings
- Signalization

Shop Drawing Reviews:

- Includes reviewing shop drawings for roadway, drainage, signing, and signalization items.

Request for information:

- Includes providing responses to RFI from the contractor during construction.

Field Reviews:

- Includes field reviews for construction activities.

Task #12 - Supplemental #3 to Task #1 Additional meetings and Management coordination from 6/28/2017 through 03/30/2018**Project General Task:**

- Additional hours to cover attended meetings from 06/28/2017 (not covered by previously approved hours) to 3/30/2018. Meetings includes:

- Progress and Coordination Meetings with City of Miami Beach
- Progress and Coordination Meetings with Florida Department of Transportation (FDOT)
- Coordination meetings with required discipline reviewers
- Coordination meetings with key stakeholders.
- Coordination with Geotechnical, Surveyor, Structure and Environmental Consultants providing services to the City of Miami Beach.

Task #13 - Electrical Design and Plans for Pump Station

Design Phase Scope Of Services:

- Prepare electrical drawings and specifications for client's submittal to agencies.
- Meetings with the Client during design: Not to exceed four (4).
- Visit site to gather information and to verify existing conditions.

Scope of work will be as follows:

- Engineer/Design/Specify electric power system to power three (3) new 80 HP 15,000 GPM each pumps with their own Variable Frequency Drive (460v 3ø 60 hertz), (1) 4 HP (480v 3ø 60 hertz) electric actuator for Sluice gate and Control Panel.
- Engineer/ Design/ Specify a quick connect for a temporary portable generator to power pump station in case normal power is lost.
- Engineer/Design/Specify new electric service from FPL furnished and installed pad mounted step down transformer. ProCon will provide required transformer rating to FPL.
- Engineer/Design/Specify grounding for new electric service as required.
- Prepare electrical quantity take off as required by FDOT from transformer to loads.
- Engineer/Design/Specify controls for the pumps and sluice gate with the support of pump manufacturer.
- Engineer/Design/Specify for a new stand-by generator with belly fuel tank to fully power pump station in case normal power is lost in lieu of a quick connect for a portable generator. (Add Alternate).

Bidding Phase Scope Of Services:

- Attend Pre-Bid Meeting: Not to exceed one (1).
- Respond to RFI's.
- Preparation of addenda (if required).
- Meeting to discuss bids.

Construction Phase Scope Of Services:

- PROCON shall not have control over or charge of and shall not be responsible for construction means, methods, techniques, sequences or procedures, or for safety precautions or programs, these being the sole responsibilities of the Contractor.
- PROCON shall not be responsible for the Contractor's failure to carry out the work in accordance with the contract documents.

The sole responsibility of PROCON will consist of the following:

- Drawing revisions for building department (if required).
- Respond to RFI's.
- Review shop drawings and equipment documentation as submitted by the Contractor

Task #14 - Supplemental to Task #5 - Lighting Post Design Services

Project General Task:

- Additional hours to cover Lighting Post Design Services
- Respond to RFI's.
- Review shop drawings and equipment documentation as submitted by the Contractor

Task #15 - Structural Supplemental for Additional work

Interim 1 - Indian Creek Drive from 25 Street to 26 Street & Collins Avenue:

- Mast arm analysis for 4 new mast arms at 26 Street & Indian Creek Drive intersection (regular single arms).
- Overhead sign structure with flashing beacons (replacing the current one right before the sharp curve along Indian Creek Drive)
- Temporary signals at 26 Street & Indian Creek Drive during reconstruction (span wire hanging from 4 wood poles).
- Temporary light pole foundations at 26th Street & Indian Creek Drive.
- Light pole foundations for decorative lighting from 25th Street to 41st Street. Footings require four different designs, spread footing with pilaster behind barrier wall, spread footing under sidewalk over utilities pipes, drilled shaft with 3' offset behind barrier wall, and conventional drilled shaft.
- Modify drainage pump structure design and plans to 4 separate precast structures.

Ultimate 2 - Indian Creek Drive from 26 Street to 41 Street:

- 2 mast arms (single arm) at Indian Creek Drive and 29th Street
- 1 mast arm (single arm) at 39th Street midblock crossing
- Modification to signals at 41 Street and Indian Creek Drive. Analysis of two existing mast arms (New mast arms are not anticipated).
- New barrier retaining wall with moment slab over existing steel sheet pile walls located between 34th and 35th Street, 35th and 36th Street, and 36th and 37th Street.

IV. Schedule E of the Agreement is hereby deleted and superseded by the amended Schedule E project schedule attached as Exhibit "A" hereto. Notwithstanding the Term, as defined in Article 2, Section 2.7, of the Agreement, or as amended by Amendment No. 1, Consultant shall complete the Services authorized in this Amendment No. 2, within the timeframe established in the amended Schedule E, attached hereto, and Consultant shall adhere to all timelines and/or deadlines, as set forth in the amended Schedule E attached hereto.

V. Additional schedules and terms applicable to Tasks 10 through 15 described herein, are included in Exhibit "B" attached hereto.

3. **RATIFICATION OF AGREEMENT**. This Amendment No. 2 shall solely apply to the "Ultimate Phase" scope of Services for the Project. Except as specified herein, the terms and conditions set forth in the Agreement, as amended by Amendment No. 1, are in full force and effect and remain unchanged.

REMAINDER OF PAGE INTENTIONALLY LEFT BLANK

IN WITNESS WHEREOF, the parties hereto have caused this Amendment No.2 to be executed in their names by their duly authorized officials as of the date first set forth above.

FOR CITY:

CITY OF MIAMI BEACH, FLORIDA

ATTEST:

By:

Rafael E. Granado, City Clerk

Philip Levine, Mayor

Date

Date

FOR CONSULTANT:

RIBBECK ENGINEERING, INC

ATTEST:

By:

Secretary

President

Print Name

Print Name

Date

Date

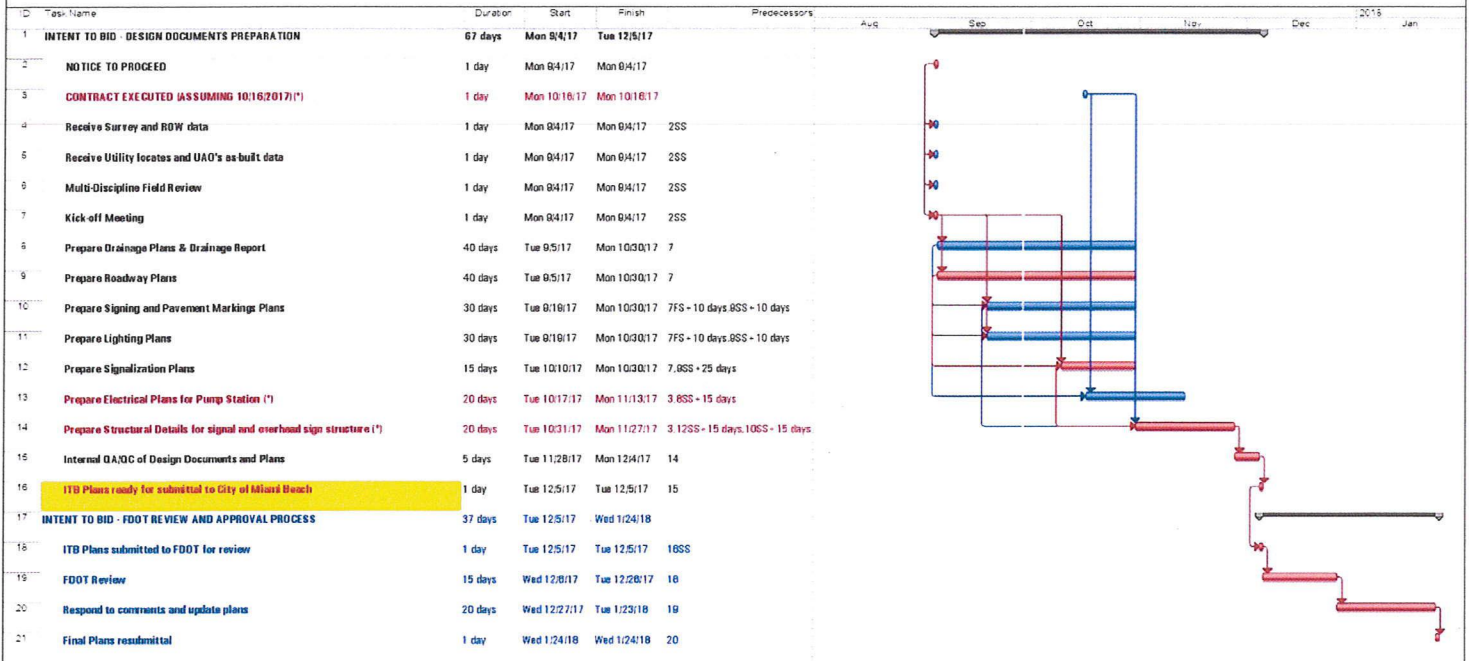
APPROVED AS TO
FORM & LANGUAGE
& FOR EXECUTION

Rafael E. Granado 10-12-17

City Attorney *RAG* Date



Intent to Bid Plans for Drainage Improvements along SR A1A/Indian Creek Drive from South of 25th Street to 41st Street



Project: Indian Creek Drive RFP
Date: Fri 8/25/17

Task: Milestone (blue diamond), Critical Task (red diamond), Progress (red bar), Summary (blue bar), Rollover Task (blue bar)

Rollover Critical Task (red diamond), Rollover Milestone (blue diamond), Rollover Progress (red bar)

Split (red bar), External Task (blue bar), Project Summary (blue bar)

Group By Summary (dropdown), Deadline (dropdown)

[*] Note: Dates were assumed for line items in red. The final schedule will depend on the exact dates that the red line items will be provided. Page 1

September 1, 2017

Mr. Giancarlo Peña, P.E., CGC Civil Engineer III
City of Miami Beach Public Works Department
1700 Convention Center Drive Miami Beach, FL 33139

RE: SR A1A/Indian Creek Drive from
25th Street to 41st Street Flood
Mitigation Project –
Intent to Bid (ITB) Roadway Reconstruction Design &
Plans Preparation Scope of Work & Fee Estimate

Dear Mr. Peña:

For your review please find enclosed the scope of work and fee estimate for the following tasks:

- ITB Design and Plans Preparation
- Post-Design Services
- Project Management, Coordination and Meetings.

The fee presented also includes all sub-consultant work such as miscellaneous structural, lighting and electrical design.

Respectfully,



Carlos Ribbeck, P.E. President

Indian Creek Drive - Intent To Bid (ITB), Coordination/Meetings and Post Design Services Fee						
Task / Consultant	Ribbeck	Bolton & Perez	Trace	Atkins	Procon	Total
Task #10 - Prepare set of plans and design documents for Intent to Bid (ITB)	\$ 581,111.85					\$ 581,111.85
Task #11 - Roadway, Drainage, SPM and Signalization Post Design Services	\$ 125,301.66					\$ 125,301.66
Task #12 - Supplemental #3 to Task #1 - Additional meetings and Management coordination from 6/28/2017 through 03/30/2018	\$ 136,937.90					\$ 136,937.90
Task #13 - Electrical Design and Plans for Pump Station					\$ 52,250.00	\$ 52,250.00
Task #14 - Supplemental to Task #5 - Lighting Post Design Services			\$ 14,427.79			\$ 14,427.79
Task #15 - Structural Supplemental for Additional work		\$ 146,318.57				\$ 146,318.57
Subtotal						\$ 1,056,347.77
Contingency (15%)						\$ 158,452.17
Total for Addendum #2 including contingency						\$ 1,214,799.94

Task #10 - Prepare set of plans and design documents for Intent to Bid (ITB)

Project Staff Hour Summary

Name of Consultant: Ribbeck Engineering, Inc.

Indian Creek Drive from 26th Street to 41st Street - ITB
429225-2-58-01

Activity No.	Activity	Project Staff Hours												Total Hours			
		Ribbeck Engineering	Enter Name Sub 1	Sub 2	Sub 3	Sub 4	Sub 5	Sub 6	Sub 7	Sub 8	Sub 9	Sub 10	Sub 11		Sub 12		
3	Project Common and General Tasks	0															0
4	Roadway Analysis	1291															1291
5	Roadway Plans	1196															1196
6a	Drainage Analysis	458															458
6b	Drainage Plans	924															924
7	Utilities	0															0
8	Env. Permits, Compliance & Clearances	0															0
9	Structures - Summary, Misc. Tasks, Dwgs	0															0
10	BDR	0															0
11	Temporary Bridge	0															0
12	Short Span Concrete Bridge	0															0
13	Medium Span Concrete Bridge	0															0
14	Structural Steel Bridge	0															0
15	Segmental Concrete Bridge	0															0
16	Movable Span	0															0
17	Retaining Walls	0															0
18	Miscellaneous Structures	0															0
19	Signing & Pavement Marking Analysis	174															174
20	Signing & Pavement Marking Plans	36															36
21	Signalization Analysis	14															14
22	Signalization Plans	34															34
23	Lighting Analysis	0															0
24	Lighting Plans	0															0
25	Landscape Architecture Analysis	0															0
26	Landscape Architecture Plans	0															0
27	Survey - Field and Office Support	0															0
28	Photogrammetry	0															0
29	Mapping	0															0
30	Terrestrial Mobile LIDAR	0															0
31	Architecture Development	0															0
32	Noise Barriers Impact Design Assessment	0															0
33	ITS Analysis	0															0
34	ITS Plans	0															0
35	Geotechnical	0															0
	Project Total	4,127	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4,127
27	Survey Field Crew Days	0															0

- Notes: 1. Staff hours for prime consultant come directly from each discipline's worksheet.
 2. Staff hours for subconsultants are to be entered manually into columns D through O.
 3. For workbooks prepared by subconsultants, their project hours will be totaled in column C.

ESTIMATE OF WORK EFFORT FOR TECHNICAL PROPOSALS - FIRM TOTAL

Financial Project Number: 429228-2-58-01

Project Name: Indian Creek Drive from 26th Street to 41

FAP Number: TBD

Date: 8/14/2017

Name of Consultant: Ribbeck Engineering, Inc.

WORK ACTIVITY	Hours from "Summary sheet"		EMPLOYEE CLASSIFICATION													TOTAL STAFF HOURS		ON CADD PERCENT	
	Project Manager Hours	Firm Total Hours	Sr Project Engineer Hours	Project Engineer Hours	Sr. Designer Hours	Staff Classification 7 Hours	Staff Classification 8 Hours	Staff Classification 9 Hours	Staff Classification 10 Hours	Staff Classification 11 Hours	Staff Classification 12 Hours	Engineer Intern Hours	Engineer Hours	Project Engineer Hours	Staff Classification 10 Hours	Staff Classification 11 Hours	Staff Classification 12 Hours		RANGE
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
3. Project General and Project Common Tasks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4. Roadway Analysis	258	1291	258	258	128	0	0	0	0	0	0	258	0	0	0	0	0	1289	
5. Roadway Plans	0	1196	0	239	479	0	0	0	0	0	0	478	0	0	0	0	0	1196	
6a. Drainage Analysis	92	458	0	366	0	0	0	0	0	0	0	0	0	0	0	0	0	458	
6b. Drainage Plans	185	924	185	185	92	0	0	0	0	0	0	185	0	0	0	0	0	924	
7. Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8. Environmental Permits, Compliance & Clearances	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
9. Structures - Misc. Tasks, Dwg's, Non-Tech.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
10. Structures - Bridge Development Report	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
11. Structures - Temporary Bridge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
12. Structures - Short Span Concrete Bridge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
13. Structures - Medium Span Concrete Bridge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
14. Structures - Structural Steel Bridge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
15. Structures - Segmental Concrete Bridge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
16. Structures - Movable Span	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
17. Structures - Retaining Walls	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
18. Structures - Miscellaneous	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
19. Signing & Pavement Marking Analysis	35	174	35	35	17	0	0	0	0	0	0	35	0	0	0	0	0	174	
20. Signing & Pavement Marking Plans	0	36	0	7	15	0	0	0	0	0	0	14	0	0	0	0	0	36	
21. Signalization Analysis	3	14	3	3	1	0	0	0	0	0	0	3	0	0	0	0	0	14	
22. Signalization Plans	0	34	0	7	13	0	0	0	0	0	0	14	0	0	0	0	0	34	
23. Lighting Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
24. Lighting Plans	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
25. Landscape Architecture Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
26. Landscape Architecture Plans	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
27. Survey (Field & Office Support)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
28. Photogrammetry	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
29. Mapping	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
30. Terrestrial Mobile LIDAR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
31. Architecture Development	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
32. Noise Barriers Impact Design Assessment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
33. Intelligent Transportation Systems Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
34. Intelligent Transportation Systems Plans	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
35. Geotechnical	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
TOTALS	573	4,127	481	734	745	0	0	0	0	0	0	987	605	734	0	0	4,125	4,537	

Field Survey Estimate: 0 4-man crew days

FIRM TOTAL

Notes:
 1. This worksheet provides the distribution of a firm's total staff hours for a project.
 2. Percentages for staff hour distribution by classification are entered below in rows 63 to 96 of this sheet.
 3. Total Staff Hours (column O) may not match staff hours from Summary worksheet (column B) due to rounding. Staff hours calculated for employee classifications are to be adjusted so totals in columns B and O match.
 4. Formulas under "Total Staff Hours Range" (columns O & P) may be adjusted to provide desired range.

Financial Project Number:

429228-2-58-01

FAP Number:

ITBD

Date: 8/14/2017

Name of Consultant: Ribbeck Engineering, Inc.

Project Name Indian Creek Drive from 26th Street to 41

ESTIMATE OF WORK EFFORT FOR TECHNICAL PROPOSALS - FIRM TOTAL

Staff Hour Distribution Percentages - Firm Total														
	Hours from "Summary sheet Firm Total"	Project Manager	Sr Project Engineer	Project Engineer	Sr Engineer	Engineer Intern	Sr. Designer	Staff Classi- fication 7	Staff Classi- fication 8	Staff Classi- fication 9	Staff Classi- fication 10	Staff Classi- fication 11	Staff Classi- fication 12	Total
3. Project General and Project Common Tasks	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.00%
4. Roadway Analysis	1291	20.0%	20.0%	20.0%	10.0%	20.0%	10.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.00%
5. Roadway Plans	1196	0.0%	0.0%	20.0%	0.0%	40.0%	40.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.00%
6a. Drainage Analysis	458	20.0%	0.0%	0.0%	80.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.00%
6b. Drainage Plans	924	20.0%	20.0%	20.0%	10.0%	20.0%	10.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.00%
7. Utilities	0	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.00%
8. Environmental Permits, Compliance & Clearances	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.00%
9. Structures - Misc. Tasks, Dwg's, Non-Tech.	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.00%
10. Structures - Bridge Development Report	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.00%
11. Structures - Temporary Bridge	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.00%
12. Structures - Short Span Concrete Bridge	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.00%
13. Structures - Medium Span Concrete Bridge	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.00%
14. Structures - Structural Steel Bridge	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.00%
15. Structures - Segmental Concrete Bridge	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.00%
16. Structures - Movable Span	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.00%
17. Structures - Retaining Walls	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.00%
18. Structures - Miscellaneous	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.00%
19. Signing & Pavement Marking Analysis	174	20.0%	20.0%	20.0%	10.0%	20.0%	10.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.00%
20. Signing & Pavement Marking Plans	36	0.0%	0.0%	20.0%	0.0%	40.0%	40.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.00%
21. Signalization Analysis	14	20.0%	20.0%	20.0%	10.0%	20.0%	10.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.00%
22. Signalization Plans	34	0.0%	0.0%	0.0%	0.0%	40.0%	40.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.00%
23. Lighting Analysis	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.00%
24. Lighting Plans	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.00%
25. Landscape Architecture Analysis	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.00%
26. Landscape Architecture Plans	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.00%
27. Survey (Field & Office Support)	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.00%
28. Photogrammetry	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.00%
29. Mapping	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.00%
30. Terrestrial Mobile LIDAR	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.00%
31. Architecture Development	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.00%
32. Noise Barriers Impact Design Assessment	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.00%
33. Intelligent Transportation Systems Analysis	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.00%
34. Intelligent Transportation Systems Plans	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.00%
35. Geotechnical	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.00%

ESTIMATE OF WORK EFFORT AND COST - PRIME CONSULTANT

Name of Project: Indian Creek Drive from 28th Street to 41st Street - ITB
 County: Miami-Dade
 FPN: 429228-2-58-01
 FAP No.: TBD

Consultant Name: Ribbeck Engineering, Inc.
 Consultant No.: F-26-0460464
 Date: 8/14/2017 Estimator:
 Carlos Ribbeck, P.E.

Staff Classification	Total Staff Hours From Summary - Firm	Project Manager	Sr. Project Engineer	Project Engineer	Sr. Engineer	Engineer Intern	Sr. Designer	Staff Classification 7	Staff Classification 8	Staff Classification 9	Staff Classification 10	Staff Classification 11	Staff Classification 12	SH By Activity	Salary Cost By Activity	Average Rate Per Task
3. Project General and Project Common Tasks	0	\$65.00	\$55.00	\$55.00	\$60.00	\$31.00	\$75.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	0	\$0	#DIV/0!
4. Roadway Analysis	1,291	258	258	258	129	258	128	0	0	0	0	0	0	1,289	\$65,120	\$50.52
5. Roadway Plans	1,196	0	239	239	0	478	479	0	0	0	0	0	0	1,196	\$40,177	\$33.59
6a. Drainage Analysis	456	92	0	0	366	0	0	0	0	0	0	0	0	456	\$27,940	\$61.00
6b. Drainage Plans	924	185	185	185	92	185	92	0	0	0	0	0	0	924	\$46,670	\$50.51
7. Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
8. Environmental Permits, Compliance & Clearances	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
9. Structures - Misc. Tasks, Dwg's, Non-Tech.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
10. Structures - Bridge Development Report	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
11. Structures - Temporary Bridge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
12. Structures - Short Span Concrete Bridge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
13. Structures - Medium Span Concrete Bridge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
14. Structures - Structural Steel Bridge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
15. Structures - Segmental Concrete Bridge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
16. Structures - Movable Span	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
17. Structures - Retaining Walls	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
18. Structures - Miscellaneous	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
19. Signing & Pavement Marking Analysis	174	35	35	35	17	35	17	0	0	0	0	0	0	174	\$0,795	\$0.55
20. Signing & Pavement Marking Plans	36	0	7	7	14	15	14	0	0	0	0	0	0	36	\$1,201	\$33.36
21. Signalization Analysis	14	3	3	3	1	3	1	0	0	0	0	0	0	14	\$715	\$51.07
22. Signalization Plans	34	0	7	7	0	13	13	0	0	0	0	0	0	34	\$1,151	\$33.85
23. Lighting Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
24. Lighting Plans	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
25. Landscape Architecture Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
26. Landscape Architecture Plans	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
27. Survey (Field & Office Support)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
28. Photogrammetry	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
29. Mapping	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
30. Terrestrial Mobile LIDAR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
31. Architecture Development	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
32. Noise Barriers Impact Design Assessment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
33. Intelligent Transportation Systems Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
34. Intelligent Transportation Systems Plans	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
35. Geotechnical	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
Total Staff Hours	4,127	\$73	481	734	605	987	745	0	0	0	0	0	0	4,125	\$191,769.00	\$46.49

Check = \$191,769.00

SALARY RELATED COSTS:
 OVERHEAD: 163.75%
 OPERATING MARGIN: 36.5%
 FCCM (Facilities Capital Cost Money): 0.797%
 EXPENSES: 4-man crew days @ \$ / day

SUBTOTAL ESTIMATED FEE: \$591,111.85

Subconsultant: Enter Name Sub 1 \$0.00
 Subconsultant: Sub 2 \$0.00
 Subconsultant: Sub 3 \$0.00
 Subconsultant: Sub 4 \$0.00
 Subconsultant: Sub 5 \$0.00
 Subconsultant: Sub 6 \$0.00
 Subconsultant: Sub 7 \$0.00
 Subconsultant: Sub 8 \$0.00
 Subconsultant: Sub 9 \$0.00
 Subconsultant: Sub 10 \$0.00
 Subconsultant: Sub 11 \$0.00
 Subconsultant: Sub 12 \$0.00

SUBTOTAL ESTIMATED FEE: \$591,111.85
Geotechnical Field and Lab Testing
SUBTOTAL ESTIMATED FEE: \$0.00
 Optional Services \$0.00
GRAND TOTAL ESTIMATED FEE: \$591,111.85

Notes:
 1. This sheet to be used by Prime Consultant to calculate the Grand Total fee
 2. Manually enter fee from each subconsultant. Unused subconsultant rows may be hidden.

Survey Field Days by Subconsultant
 4 - Person Crew

Project Activity 4: Roadway Analysis

Estimator: CR

Indian Creek Drive from 26th Street to 41st Street - ITB
429228-2-58-01

Representing	Print Name	Signature / Date
City of Miami Beach		
Ribbeck Engineering, Inc.		

NOTE: Signature Block is optional, per District preference

Task No.	Task	Units	No of Units	Hours/ Unit	Total Hours	Comments
4.1	Typical Section Package	LS	1	0	0	
4.2	Pavement Type Selection Report	LS	1	0	0	
4.3	Pavement Design Package	LS	1	0	0	
4.4	Cross-Slope Correction	LS	1	0	0	
4.5	Horizontal /Vertical Master Design Files	LS	1	225	225	Mid Range @ 300 hrs/mile x 0.75 miles along mainline for final design along Indian Creek Drive. Side street geometry already included under Interim 2.
4.6	Access Management	LS	1	0	0	
4.7	Roundabout Evaluation	LS	1	0	0	
4.8	Roundabout Final Design Analysis	LS	1	0	0	
4.9	Cross Section Design Files	LS	1	148	148	60 hrs (low range for final grade) x 2 (every 50 ft) x 0.75 miles + 58 hrs for side streets cross sections @ 40 hs (low range) x 2 (every 50 ft) x 0.72 miles 0.72mi of side streets (0.09mi (28 Street) + 0.08mi (29 Street) + 0.09mi (30 Street) + 0.06mi (32 Street) + 0.05mi (34 Street) + 0.05mi (35 Street) + 0.08 mi (38 Street) + 0.05mi (41 Street) + 0.06mi (Collins Ave from 31 Street to 32 Street) + 0.11mi (Collins Ave from 36 Street to 38 Street) = 90 + 58 = 148 hs
4.10	Traffic Control Analysis	LS	1	80	80	Level III TCP
4.11	Master TCP Design Files	LS	1	79	79	1.47 miles x 54 hrs/mile = 79 hrs
4.12	Design Variations and Exceptions	LS	1	24	24	24 hrs for additional Design Variation (Superelevation Transition)
4.13	Design Report	LS	1	0	0	
4.14	Quantities	LS	1	120	120	Low range
4.15	Cost Estimate	LS	1	40	40	Cost estimates.

Project Activity 4: Roadway Analysis

Task No.	Task	Units	No of Units	Hours/ Unit	Total Hours	Comments
4.16	Technical Special Provisions	LS	1	0	0	
4.17	Other Roadway Analyses	LS	47	8	376	Harmonization Efforts for analysis and grading of 32 Properties x 8 hours per property and harmonization of 15 driveways x 8 hrs per driveway = 376 hrs
Roadway Analysis Technical Subtotal 1092						
4.18	Field Reviews	LS	8	8	64	8 field reviews for driveway and property harmonization x 2 ppl x 4 hrs each - total of 32 properties to harmonize.
4.19	Monitor Existing Structures	LS	1	0	0	
4.20	Technical Meetings	LS	1	0	0	
4.21	Quality Assurance/Quality Control	LS	%	5%	55	
4.22	Independent Peer Review	LS	%	0%	0	
4.23	Supervision	LS	%	5%	55	
Roadway Analysis Nontechnical Subtotal 174						
4.24	Coordination	LS	%	2%	25	
4. Roadway Analysis Total 1291						

Technical Meetings	Units	No of Units	Hours/ Unit	Total Hours	PM Attendance at Meeting Required?	Number
Typical Section	EA	0	0	0		0
Pavement	EA	0	0	0		0
Access Management	EA	0	0	0		0
15% Line and Grade	EA	0	0	0		0
Driveways	EA	0	0	0		0
Local Governments (cities, counties, MPO)	EA	0	0	0		0
Work Zone Traffic Control	EA	0	0	0		0
30/60/90/100% Comment Review Meetings	EA	0	0	0		0
Other Meetings	EA	0	0	0		0
Subtotal Technical Meetings				0	Subtotal Project Manager Meetings	0
Progress Meetings (if required by FDOT)	EA	0	0	0	PM attendance at Progress Meetings is manually entered on General Task 3	--
Phase Review Meetings	EA	0	0	0	PM attendance at Phase Review Meetings is manually entered on General Task 3	--
Total Meetings				0	Total Project Manager Meetings (carries to Tab 3)	0

Carries to 4.17

Carries to Tab 3

Project Activity 5: Roadway Plans

Indian Creek Drive from 26th Street to 41st Street - ITB
429228-2-58-01

Estimator:

Representing	Print Name	Signature / Date
City of Miami Beach		
Ribbeck Engineering, Inc.		

NOTE: Signature Block is optional, per District preference

Task No.	Task	Scale	Units	No. of Units or Sheet	Hours/ Unit or Sheet	Total Hours	Comments
5.1	Key Sheet		Sheet	1	4	4	
5.2	Summary of Pay Items Including Quantity Input		Sheet	0	0	0	
5.3	Typical Section Sheets						
5.3.1	Typical Sections		EA	9	6	54	9 typical sections (low range)
5.3.2	Typical Section Details		EA	0	0	0	
5.4	General Notes/Pay Item Notes		Sheet	1	6	6	
5.5	Summary of Quantities Sheets		Sheet	20	5	100	Assuming 20 summary of quantity sheets for roadway items.
5.6	Project Layout		Sheet	0	0	0	
5.7	Plan/Profile Sheet		Sheet	48	3	144	2 components - Roadway Plans and Drainage Plans - Each Component = 10 sheets along Indian Creek Drive and 14 along side streets.
5.8	Profile Sheet		Sheet	0	0	0	
5.9	Plan Sheet		Sheet	0	0	0	
5.10	Special Profile		Sheet	0	0	0	
5.11	Back-of-Sidewalk Profile Sheet		Sheet	14	6	84	Low Range
5.12	Interchange Layout Sheet		Sheet		0	0	
5.13	Ramp Terminal Details (Plan View)		Sheet		0	0	
5.14	Intersection Layout Details		Sheet	15	8	120	Low Range - 15 Intersection grading details (low range)
5.15	Special Details		EA	47	8	376	Detail CADD production for harmonization of 32 properties and 15 driveways at 8 hrs each = 47 x 8 hrs = 376 hrs
5.16	Cross-Section Pattern Sheet(s)		Sheet		0	0	

Project Activity 5: Roadway Plans

Task No.	Task	Scale	Units	No. of Units or Sheet	Hours/ Unit or Sheet	Total Hours	Comments	
5.17	Roadway Soil Survey Sheet(s)		Sheet		0	0		
5.18	Cross Sections		EA	80	0.25	20	Low Range - cross sections for full roadway reconstruction at driveways and side streets	
5.19	Temporary Traffic Control Plan Sheets		Sheet	30	6	180	Low Range - 2 Phases x 15 sheets per phase (8 along mainline + 7 along selected side streets) = 30 sheets x 6 hrs/sheet = 180 hrs	
5.20	Temporary Traffic Control Cross Section Sheets		EA		0	0		
5.21	Temporary Traffic Control Detail Sheets		Sheet	0	0	0		
5.22	Utility Adjustment Sheets		Sheet		0	0		
5.23	Selective Clearing and Grubbing Sheet(s)		Sheet		0	0		
5.24	Project Network Control Sheet(s)		Sheet	0	0	0		
5.25	Environmental Detail Sheets		Sheet		0	0		
5.26	Utility Verification Sheet(s) (SUE Data)		Sheet	0	0	0		
Roadway Plans Technical Subtotal							1088	
5.27	Quality Assurance/Quality Control		LS	%	5%	54		
5.28	Supervision		LS	%	5%	54		
5. Roadway Plans Total							1196	

Project Activity 6a: Drainage Analysis

Indian Creek Drive from 26th Street to 41st Street - ITB
429228-2-58-01

Estimator: CR

Representing	Print Name	Signature / Date
City of Miami Beach		
Ribbeck Engineering, Inc.		

NOTE: Signature Block is optional, per District preference

Task No.	Task	Units	No of Units	Hours/Unit	Total Hours	Comments
6a.1	Drainage Map Hydrology	Per Map				
6a.2	Base Clearance Report	Per Location	0	0	0	
6a.3	Pond Siting Analysis and Report	Per Basin	0	0	0	
6a.4	Design of Cross Drains	EA	0	0	0	
6a.5	Design of Ditches	Per Ditch Mile	0	0	0	
6a.6	Design of Stormwater Management Facility (Offsite or Infield Pond)	EA	0	0	0	
6a.7	Design of Stormwater Management Facility (Roadside Ditch as Linear Pond)	Per Cell	0	0	0	
6a.8	Design of Floodplain Compensation	Per Floodplain Basin	0	0	0	
6a.9	Design of Storm Drains	EA	112	2	224	112 additional drainage structures for final grade (not covered under previous tasks (Charged for 100 proposed DS + 50 existing DS along Collins for modeling) --> Total DS = 212 DS - 100 DS = 112 DS.
6a.10	Optional Culvert Material	EA	0	0	0	
6a.11	French Drain Systems	Per Cell	0	0	0	
6a.12	Drainage Wells	EA	0	0	0	
6a.13	Drainage Design Documentation Report	LS	1	80	80	Final Drainage Report
6a.14	Bridge Hydraulic Report	EA	0	0	0	

Project Activity 6a: Drainage Analysis

Task No.	Task	Units	No of Units	Hours/ Unit	Total Hours	Comments
6a.15	Temporary Drainage Analysis	LS	1	0	0	
6a.16	Cost Estimate	LS		0	0	
6a.17	Technical Special Provisions	LS		0	0	
6a.18	Other Drainage Analysis	LS	1	96	96	Design of yard drains for harmonization of properties (96 hrs = 32 properties to be harmonized @ 3 hrs per property).
Drainage Analysis Technical Subtotal					400	
6a.19	Field Reviews	LS	0	0	0	
6a.20	Technical Meetings	LS	1	9	9	1 phase review meeting per component, 3 components, 3 hrs each
6a.21	Environmental Look-Around (ELA) Meeting	LS	1	0	0	
6a.22	Quality Assurance/Quality Control	LS	%	5%	20	
6a.23	Independent Peer Review	LS	%	0%	0	
6a.24	Supervision	LS	%	5%	20	
Drainage Analysis Nontechnical Subtotal					49	
6a.25	Coordination	LS	%	2%	9	
6a. Drainage Analysis Total					458	

Technical Meetings	Units	No of Units	Hours/ Unit	Total Hours	PM Attendance at Meeting Required?	Number
Base Clearance Water Elevation	EA	0	0	0		0
Pond Siting	EA	0	0	0		0
Agency	EA	0	0	0		0
Local Governments (cities, counties)	EA	0	0	0		0
FDOT Drainage	EA	0	0	0		0
Other Meetings	EA	0	0	0		0
Subtotal Technical Meetings				0		0
Progress Meetings (if required by FDOT)	EA	0	0	0	PM attendance at Progress Meetings is manually entered on General Task 3	--
Phase Review Meetings	EA	3	3	9	PM attendance at Phase Review Meetings is manually entered on General Task 3	--
Total Meetings				9	Total Project Manager Meetings (carries to Tab 3)	0

Carries to 6 19

Carries to Tab 3

6b. Drainage Plans

Indian Creek Drive from 26th Street to 41st Street - ITB
429228-2-58-01

Estimator: CR

Representing	Print Name	Signature / Date
FDOT District		
Ribbeck Engineering, Inc.		

NOTE: Signature Block is optional, per District preference

Task No.	Task	Scale	Units	No. of Units or Sheet	Hours/Unit or Sheet	Total Hours	Comments
6b.1	Drainage Map (Including Interchanges)		Sheet	4	16	64	Low Range - 4 sheets x 16 hrs/sheet
6b.2	Bridge Hydraulics Recommendation Sheets		Sheet	0	0	0	
6b.3	Summary of Drainage Structures		Sheet	7	16	112	Low Range
6b.4	Optional Pipe/Culvert Material		Sheet	2	4	8	Low Range
6b.5	Drainage Structure Sheet(s) (Per Structure)		EA	112	3	336	112 additional drainage structures for final grade (not covered under previous tasks, (charged for 100 proposed DS). Total DS = 212 DS - 100 DS = 112 DS.
6b.6	Miscellaneous Drainage Detail Sheets		Sheet	13	24	312	13 additional drainage details = 19 total detl sheets - 6 detail sht previously included in previous Tasks hours = 13 x 24 hs = 312 hrs Addtl Details = (1) type C modified, (2) manhole riser, (3) manhole riser in line, (4) driveway inlet single, (5) driveway inlet double, (6) trench drain, (7) best management practice, (8 - 11) addtl. pump station details, (12) pipe bedding & (13) manatee grate.
6b.7	Lateral Ditch Plan/Profile		Sheet	0	0	0	
6b.8	Lateral Ditch Cross Sections		EA	0	0	0	
6b.9	Retention/Detention Ponds Detail Sheet(s)		Sheet	0	0	0	
6b.10	Retention Pond Cross Sections		EA	0	0	0	
6b.11	Erosion Control Plan Sheet(s)		Sheet	0	0	0	
6b.12	SWPPP Sheet(s)		Sheet	2	4	8	
Drainage Plans Technical Subtotal						840	
6b.13	Quality Assurance/Quality Control		LS	%	5%	42	
6b.14	Supervision		LS	%	5%	42	
6. Drainage Plans Total						924	

Project Activity 19: Signing and Pavement Marking Analysis

Indian Creek Drive from 26th Street to 41st Street - ITB
429228-2-58-01

Estimator: CR

Representing	Print Name	Signature / Date
City of Miami Beach		
Ribbeck Engineering, Inc.		

NOTE: Signature Block is optional, per District preference

Task No.	Task	Units	No. of Units	Hours/Units	Total Hours	Comments
19.1	Traffic Data Analysis	LS	1	0	0	
19.2	No Passing Zone Study	LS	1		0	
19.3	Reference and Master Design File	LS	1	100.5	101	45 hrs to set up (Mid Range) - 30 hrs to set up (Low Range (previously charged in Interim)) = 15 hrs to set up + 90 hr/mi (mid range) - 40 hrs/mile (low range (previously charged in Interim)) + 3 signalized intersections x 12 hrs (mid range) - 8 hrs/intersection (low range (previously negotiated)) = 15 hrs to set up + 50 hrs x 1.47 miles + 3 intersections x 4 hrs/intersection = 100.5 hrs
19.4	Multi-Post Sign Support Calculations	EA	0	0	0	
19.5	Sign Panel Design Analysis	EA	0	0	0	
19.6	Sign Lighting/Electrical Calculations	EA	1		0	
19.7	Quantities	LS	1	54	54	3 hrs x 18 sheets = 54 hrs
19.8	Cost Estimate	LS	1		0	
19.9	Technical Special Provisions	LS	1		0	
19.10	Other Signing and Pavement Marking	LS	1		0	
Signing and Pavement Marking Analysis Technical Subtotal					155	
19.11	Field Reviews	LS	1	0	0	
19.12	Technical Meetings	LS	1	0	0	Meetings are listed below
19.13	Quality Assurance/Quality Control	LS	%	5%	8	
19.14	Independent Peer Review	LS	%	0%	0	
19.15	Supervision	LS	%	5%	8	
Signing and Pavement Marking Analysis Nontechnical Subtotal					16	
19.16	Coordination	LS	%	2%	3	
19. Signing and Pavement Marking Analysis Total					174	

Project Activity 19: Signing and Pavement Marking Analysis

Task No.	Task	Units	No. of Units	Hours/ Units	Total Hours	Comments	Number
	Technical Meetings				Total Hours		
	Sign Panel Design	EA	1	0	0	no	0
	Queue Length Analysis	EA	0	0	0		0
	Local Governments (cities, counties)	EA	0	0	0		0
	Other Meetings	EA	0	0	0		0
	Subtotal Technical Meetings				0		
	Progress Meetings (if required by FDOT)	EA	0	0	0	<i>PM attendance at Progress Meetings is manually entered on General Task 3</i>	--
	Phase Review Meetings	EA	0	0	0	<i>PM attendance at Phase Review Meetings is manually entered on General Task 3</i>	--
	Total Meetings				0	Total Project Manager Meetings (carries to Tab 3)	0

Carries to 19 12

Carries to Tab 3

Project Activity 20. Signing and Pavement Marking Plans

Indian Creek Drive from 26th Street to 41st Street - ITB
429228-2-58-01

Estimator:

Representing	Print Name	Signature / Date
City of Miami Beach		
Ribbeck Engineering, Inc.		

NOTE: Signature Block is optional, per District preference

Task No.	Task	Scale	Units	No of Units	Hours/ Unit	No. of Sheets	Total Hours	Comments
20.1	Key Sheet		Sheet	1	4	1	4	New key sheet
20.2	Summary of Pay Items including TRNS-Port Input		LS	0	0	0	0	
20.3	Tabulation of Quantities		Sheet	0	0	0	0	
20.4	General Notes/Pay Item Notes		Sheet	1	4	1	4	New general notes
20.5	Project Layout		Sheet	0	0	0	0	
20.6	Plan Sheet		Sheet	6	4	6	24	6 additional sheets not previously included x 4 hrs/intersection
20.7	Typical Details		EA	0	0	0	0	
20.8	Guide Sign Worksheet(s)		EA	0	0	0	0	
20.9	Traffic Monitoring Site		EA	0	0	0	0	
20.10	Cross Sections		EA	0	0	0	0	
20.11	Special Service Point Details		EA	0	0	0	0	
20.12	Special Details		LS	0	0	0	0	
20.13	Interim Standards		LS	0	0	0	0	
Signing and Pavement Marking Plans Technical Subtotal						8	32	
20.14	Quality Assurance/Quality Control		LS	%	5%		2	
20.15	Supervision		LS	%	5%		2	
20. Signing and Pavement Marking Plans Total						8	36	

Project Activity 21: Signalization Analysis

Indian Creek Drive from 26th Street to 41st Street - ITB
429228-2-58-01

Estimator:

Representing	Print Name	Signature / Date
City of Miami Beach		
Ribbeck Engineering, Inc.		

NOTE: Signature Block is optional, per District preference

Task No.	Task	Units	No. of Units	Hours/ Units	Total Hours	Comments
21.1	Traffic Data Collection	LS	1		0	
21.2	Traffic Data Analysis	PI	0		0	
21.3	Signal Warrant Study	LS	1		0	
21.4	System Timings	LS	1		0	
21.5	Reference and Master Signalization Design File	PI	0		0	
21.6	Reference and Master Interconnect Communication Design File	LS	1		0	
21.7	Overhead Street Name Sign Design	EA	2	4	8	Assuming 4 IISNS
21.8	Pole Elevation Analysis	LS	1	4	4	2 hrs for first intersection + 1 hr x 2 additional intersections
21.9	Traffic Signal Operation Report	LS	1		0	
21.10	Quantities	LS	0	0	0	
21.11	Cost Estimate	LS	1		0	
21.12	Technical Special Provisions	LS	1		0	
21.13	Other Signalization Analysis	LS	1		0	
Signalization Analysis Technical Subtotal					12	
21.14	Field Reviews	LS	1	0	0	
21.15	Technical Meetings	LS	1	0	0	
21.16	Quality Assurance/Quality Control	LS	%	5%	1	
21.17	Independent Peer Review	LS	%	0%	0	
21.18	Supervision	LS	%	5%	1	
Signalization Analysis Nontechnical Subtotal					2	

Project Activity 21: Signalization Analysis

21.19	Coordination	LS	%	2%	0	
21. Signalization Analysis Total						14

Technical Meetings	Units	No of Units	Hours/ Unit	Total Hours	PM Attendance at Meeting Required?	Number
FDOT Traffic Operations	EA	0	0	0		0
FDOT Traffic Design	EA	0	0	0		0
Power Company (service point coordination)	EA	0	0	0		0
Maintaining Agency (cities, counties)	EA	0	0	0		0
Railroads	EA	0	0	0		0
Other Meetings	EA	0	0	0		0
Subtotal Technical Meetings				0		0
Progress Meetings (if required by FDOT)	EA	0	0	0	<i>PM attendance at Progress Meetings is manually entered on General Task 3</i>	--
Phase Review Meetings	EA	0	0	0	<i>PM attendance at Phase Review Meetings is manually entered on General Task 3</i>	--
Total Meetings				0	Total Project Manager Meetings (carries to Tab 3)	0

Carries to Tab 3

Carries to 21.15

Project Activity 22: Signalization Plans

Indian Creek Drive from 26th Street to 41st Street - ITB
429228-2-58-01

Estimator:

Representing	Print Name	Signature / Date
City of Miami Beach		
Ribbeck Engineering, Inc.		

NOTE: Signature Block is optional, per District preference

Task No.	Task	Scale	Units	No of Units	Hours/Unit	No. of Sheets	Total Hours	Comments
22.1	Key Sheet		Sheet	1	4	1	4	Key sheet
22.2	Summary of Pay Items Including Designer Interface (TRNS-Port) Input		Sheet	0	0	0	0	
22.3	Tabulation of Quantities		Sheet	0	0	0	0	
22.4	General Notes/Pay Item Notes		Sheet	1	4	1	4	General notes
22.5	Plan Sheet		Sheet	0	0	0	0	
22.6	Interconnect Plans		Sheet	0	0	0	0	
22.7	Traffic Monitoring Site		EA	0	0	0	0	
22.8	Guide Sign Worksheet		EA	4	2	2	8	4 IISNS design
22.9	Special Details		Sheet	2	2	2	4	(1) video detection detail, (2) controller cabinet
22.10	Special Service Point Details		EA	1	4	1	4	FPL service point detail sheet
22.11	Mast Arm/Monotube Tabulation Sheet		PI	3	2	1	6	Mast arm tabulation for new mast arms
22.12	Strain Pole Schedule		PI	0	0	0	0	
22.13	TCP Signal (Temporary)		EA	0	0	0	0	
22.14	Temporary Detection Sheet		PI	0	0	0	0	
22.15	Utility Conflict Sheet		Sheet	0	0	0	0	
22.16	Interim Standards		LS	1	0	0	0	
				Signalization Plans Technical Subtotal		8	30	
22.17	Quality Assurance/Quality Control		LS	%	5%		2	
22.18	Supervision		LS	%	5%		2	
				22. Signalization Plans Total		8	34	

Task #11 – Post Design Services for Roadway, Drainage, SPM and Signalization

Project Staff Hour Summary

Name of Consultant: Ribbeck Engineering, Inc. Indian Creek Drive from 26th Street to 41st - Post Design Services
429228-2-68-01

Activity No.	Activity	Project Staff Hours										Total Hours					
		Ribbeck Engineering, Inc.	Sub 1	Sub 2	Sub 3	Sub 4	Sub 5	Sub 6	Sub 7	Sub 8	Sub 9		Sub 10	Sub 11	Sub 12		
3	Project General Tasks	80															80
4	Roadway	552															552
5	Utilities	26															26
6	Structures	0															0
7	Signing and Marking	82															82
8	Signalization	60															60
9	Lighting	0															0
10	Landscape Architecture	0															0
	Project Total	800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	800

- Notes:
1. Staff hours for prime consultant come directly from each discipline's worksheet.
 2. Staff hours for subconsultants are to be entered manually into columns D through O.
 3. For workbooks prepared by subconsultants, their project hours will be totaled in column C.

Form Revised 04/04/06

ESTIMATE OF WORK EFFORT FOR TECHNICAL PROPOSALS - GRAND TOTAL

Financial Project Number: 429228-2-58-01 Date: 8/13/2017 Project Name: Indian Creek Drive from 26th Street to 41st - Post-De
 FAP Number: _____ Name of Consultant: Ribbeck Engineering, Inc.

WORK ACTIVITY	EMPLOYEE CLASSIFICATION													TOTAL STAFF HOURS			
	Hours from "Summary" sheet	Project Manager		Sr. Engineer		Engineer Intern		Sr. Designer		Staff Classification 7	Staff Classification 8	Staff Classification 9	Staff Classification 10	Staff Classification 11	Staff Classification 12	RANGE	ON CADD
		Hours	Hours	Hours	Hours	Hours	Hours	Hours	Hours	Hours	Hours	Hours	Hours	Hours	PERCENT		
3. Project General Tasks	80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	80	88
4. Roadway	552	110	110	55	110	110	55	0	0	0	0	0	0	0	0	550	605
5. Utilities	26	5	5	3	5	5	3	0	0	0	0	0	0	0	0	26	29
6. Structures	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7. Signaling and Marking	82	16	16	8	16	16	8	0	0	0	0	0	0	0	0	80	88
8. Signalization	60	12	12	6	12	12	6	0	0	0	0	0	0	0	0	60	66
9. Lighting	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10. Landscape Architecture	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTALS	800	223	143	72	143	143	72	0	0	0	0	0	0	0	0	796	876

From Revised Outside

etc. This worksheet provides the distribution of the grand total staff hours for a project. Percentages for staff hour distribution by classification are entered below rows 56 to 84 of this sheet. Staff hours calculated for employee classifications are to be adjusted so totals in columns C and P match. Formulas under "Total Staff Hours Range" (columns P, 80) may be adjusted to provide desired range. This spreadsheet to be provided in Technical Proposals for Districts that require a breakdown of hours by classification.

REPORT FOR TECHNICAL PROPOSALS - GRAND TOTAL

Financial Project Number: 429228-2-58-01 Date: 8/13/2017 Project Name: Indian Creek Drive from 26th Street to
 FAP Number: _____ Name of Consultant: Ribbeck Engineering, Inc.

WORK ACTIVITY	Staff Hour Distribution Percentages - Grand Total															
	Hours from "Summary" sheet	Project Manager		Sr. Engineer		Engineer Intern		Sr. Designer		Staff Classification 7	Staff Classification 8	Staff Classification 9	Staff Classification 10	Staff Classification 11	Staff Classification 12	Total
		Grand Total	Hours	Percentage	Hours	Percentage	Hours	Percentage	Hours	Percentage	Hours	Percentage	Hours	Percentage	Hours	Percentage
3. Project General Tasks	80	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.00%
4. Roadway	552	20.0%	20.0%	10.0%	20.0%	20.0%	10.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.00%
5. Utilities	26	20.0%	20.0%	10.0%	20.0%	20.0%	10.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.00%
6. Structures	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.00%
7. Signaling and Marking	82	20.0%	20.0%	10.0%	20.0%	20.0%	10.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.00%
8. Signalization	60	20.0%	20.0%	10.0%	20.0%	20.0%	10.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.00%
9. Lighting	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.00%
10. Landscape Architecture	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.00%

Note: This spreadsheet to be used in Technical Proposal for Districts requiring the Grand Total hours be provided along with percentage distribution by classification.

ESTIMATE OF WORK EFFORT AND COST - PRIME CONSULTANT

Name of Project: Indian Creek Drive from 26th Street to 41st - Post Design Services
 County: Miami-Dade
 FPN: 429228-2-58-01
 FAP No.:

Con
C

Staff Classification	Hours From "SH Summary - Firm"	Project Manager	Sr Project Engineer	Project Engineer	Sr. Engineer	Engineer Intern	Sr. Designer	Staff Classification 7	Staff Classification 8	Staff Classification 9	Staff Classification 10	Staff Classification 11
		\$65.00	\$58.00	\$56.00	\$60.00	\$31.00	\$25.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
3. Project General Tasks	80	80	0	0	0	0	0	0	0	0	0	0
4. Roadway	552	110	110	110	55	109	54	0	0	0	0	0
5. Utilities	26	5	5	5	3	5	3	0	0	0	0	0
6. Structures	0	0	0	0	0	0	0	0	0	0	0	0
7. Signing and Marking	82	16	16	16	8	17	9	0	0	0	0	0
8. Signalization	60	12	12	12	6	12	6	0	0	0	0	0
9. Lighting	0	0	0	0	0	0	0	0	0	0	0	0
10. Landscape Architecture	0	0	0	0	0	0	0	0	0	0	0	0
Total Staff Hours	800	223	143	143	72	143	72	0	0	0	0	0
Total Staff Cost		\$14,495.00	\$8,294.00	\$8,008.00	\$4,320.00	\$4,433.00	\$1,800.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

Form Revised 04/04/06

SALARY RELATED COSTS:
 OVERHEAD:
 OPERATING MARGIN:
 FCCM (Facilities Capital Cost Money):
 EXPENSES:

SUBTOTAL ESTIMATED FEE:

GRAND TOTAL ESTIMATED FEE:

Estimator: Carlos Ribbeck, PE

Indian Creek Drive from 26th Street to 41st - Post Design Services
429228-2-58-01

Task No.	Task	Project Manager Meeting (EA)		Plans Revisions (EA)		Shop Drawing Reviews (EA)		Request for Information Resolution (EA)		Field Reviews (EA)					
		No of Mtgs	Hours / Mtg	Total Hours	No of Units	Hours / Unit	Total Hours	No of Units	Hours / Unit	Total Hours	No of Units	Hours / Unit	Total Hours		
3	General Task	0	0	0											
4	Roadway/Drainage			30	8	240	14	8	112	120	1	120	20	4	80
5	Utilities						0	0	0	10	1	10	4	4	16
6	Structures			0	0	0	0	0	0	0	0	0	0	0	0
7	Signing & Marking			6	8	48	6	3	18	0	0	0	4	4	16
8	Signalization			4	8	32	4	3	12	0	0	0	4	4	16
9	Lighting			0	0	0	0	0	0	0	0	0	0	0	0
10	Landscape Architecture			0	0	0	0	0	0	0	0	0	0	0	0
															800

Form Revised 06/27/07

Task #12 - Supplemental #3 to Task #1 - Additional meetings and Management coordination from 6/28/2017 through 03/30/2018

ESTIMATE OF WORK EFFORT FOR TECHNICAL PROPOSALS - FIRM TOTAL

Financial Project Number: 429228-2-58-01 Date: 8/13/2017 Project Name: Indian Creek Drive from 26th Street to 41
 FAP Number: TBD Name of Consultant: Ribbeck Engineering, Inc.

WORK ACTIVITY	Hours from "Summary" sheet	EMPLOYEE CLASSIFICATION											TOTAL STAFF HOURS RANGE	ON CADD PERCENT				
		Project Manager Hours	Sr Project Engineer Hours	Project Engineer Hours	Sr Engineer Hours	Engineer Intern Hours	Designer Hours	Staff Classification 7 Hours	Staff Classification 8 Hours	Staff Classification 9 Hours	Staff Classification 10 Hours	Staff Classification 11 Hours			Staff Classification 12 Hours			
		362	0	0	361	0	0	0	0	0	0	0			0	723	795	
3. Project General and Project Common Tasks	723																	
4. Roadway Analysis	0																	
5. Roadway Plans	0																	
6a. Drainage Analysis	0																	
6b. Drainage Plans	0																	
7. Utilities	0																	
8. Environmental Permits, Compliance & Clearances	0																	
9. Structures - Misc. Tasks, Dwg. Non-Tech.	0																	
10. Structures - Bridge Development Report	0																	
11. Structures - Temporary Bridge	0																	
12. Structures - Short Span Concrete Bridge	0																	
13. Structures - Medium Span Concrete Bridge	0																	
14. Structures - Structural Steel Bridge	0																	
15. Structures - Segmental Concrete Bridge	0																	
16. Structures - Movable Span	0																	
17. Structures - Retaining Walls	0																	
18. Structures - Miscellaneous	0																	
19. Signing & Pavement Marking Analysis	0																	
20. Signing & Pavement Marking Plans	0																	
21. Signalization Analysis	0																	
22. Signalization Plans	0																	
23. Lighting Analysis	0																	
24. Lighting Plans	0																	
25. Landscape Architecture Analysis	0																	
26. Landscape Architecture Plans	0																	
27. Survey (Field & Office Support)	0																	
28. Photogrammetry	0																	
29. Mapping	0																	
30. Terrestrial Mobile LIDAR	0																	
31. Architecture Development	0																	
32. Noise Barriers Impact Design Assessment	0																	
33. Intelligent Transportation Systems Analysis	0																	
34. Intelligent Transportation Systems Plans	0																	
35. Geotechnical	0																	
TOTALS	723	362	0	0	0	361	0	0	0	0	0	0	0	0	0	0	723	795

Field Survey Estimate: 0 4-man crew days

FIRM TOTAL **723**

Notes:
 1. This worksheet provides the distribution of a firm's total staff hours for a project.
 2. Percentages for staff hour distribution by classification are entered below in rows 63 to 86 of this sheet.
 3. Total Staff Hours (column O) may not match staff hours from Summary worksheet (column B) due to rounding. Staff hours calculated for employee classifications are to be adjusted so totals in columns B and O match.
 4. Formulas under "Total Staff Hours Range" (columns O & P) may be adjusted to provide desired range.

Project Activity 3: General Tasks

Estimator: CR

Indian Creek Drive from 26th Street to 41st Street Management and Coordination Meetings - Supplemental 2
429228-2-56-01

Representing	Print Name	Signature / Date
City of Miami Beach		
Consultant Name		

NOTE: Signature Block is optional, per District preference

Task No.	Task	Units	No of Units	Hours/Unit	Total Hours	Comments
3.1	Public Involvement					
3.1.1	Community Awareness Plan	LS	1	0	0	
3.1.2	Notifications	LS	1	0	0	
3.1.3	Prepare Mailing Lists	LS	1	0	0	
3.1.4	Median Modification Letters	LS	1	0	0	
3.1.5	Driveway Modification Letters	LS	1	0	0	
3.1.6	Newsletters	LS	1	0	0	
3.1.7	Renderings and Fly Throughs	LS	1	0	0	
3.1.8	PowerPoint Presentation	LS	1	0	0	
3.1.9	Public Meeting Preparations	LS	1	0	0	
3.1.10	Public Meeting Attendance/Followup	LS	1	0	0	
3.1.11	Other Agency Meetings	LS	0	0	0	
3.1.12	Web Site	LS	1	0	0	
3.1 Public Involvement Subtotal					0	
3.2	Joint Project Agreements	EA	0	0	0	
3.3	Specifications Package Preparation	LS	1	0	0	
3.4	Contract Maintenance and EDMS	LS	1	0	0	
3.5	Value Engineering (Multi-Discipline Team) Review	LS	1	0	0	
3.6	Prime Consultant Project Manager Meetings	LS	1	723	723	See listing below
3.7	Plans Update	LS	1	0	0	
3.8	Post Design Services	LS	1	0	0	
3.9	Digital Delivery	LS	1	0	0	
3.10	Risk Assessment Workshop	LS	1	0	0	
3.11	Railroad, Transit, and/or Airport Coordination	LS	1	0	0	

Project Activity 3: General Tasks

Task No.	Task	Units	No of Units	Hours/Unit	Total Hours	Comments
3.12	Other Project General Tasks	LS	1	0	0	
3. Project Common and Project General Tasks Total						723

3.6 - List of Project Manager Meetings						
Task	Units	No of Units	Hours/Unit	Total Hours	Comments	
Roadway Analysis	EA	0	0	0		
Drainage	EA	0	0	0		
Utilities	EA	0	0	0		
Environmental	EA	0	0	0		
Structures	EA	0	0	0		
Signing & Pavement Marking	EA	0	0	0		
Signalization	EA	0	0	0		
Lighting	EA	0	0	0		
Landscape Architecture	EA	0	0	0		
Survey	EA	0	0	0		
Photogrammetry	EA	0	0	0		
ROW & Mapping	EA	0	0	0		
Terrestrial Mobile LIDAR	EA	0	0	0		
Architecture	EA	0	0	0		
Noise Barriers	EA	0	0	0		
ITS Analysis	EA	0	0	0		
Geotechnical	EA	0	0	0		
Progress Meetings	LS	1	1	723	Additional coordination meetings. Assuming 1 weekly coordination meeting at City of Miami Beach and 1 weekly coordination meeting at FDOT = 3 Senior Engineers per weekly coordination at COMB and FDOT (4 hrs per person including travel time to City of Miami Beach x 3 persons = 12 hours x week for City of Miami Beach) + (3 hrs technical meetings FDOT x 3 persons = 9 hrs x week) - Assuming from 6/29/2017 through 12/29/2017 (27 weeks) = 4x3x27 + 3x3x27 = 567 hrs In addition, assuming 1 weekly coordination meeting at City of Miami Beach from 1/3/2018 through 3/30/2018 = (4 hrs per person including travel time to City of Miami Beach x 3 persons = 12 hours (13 additional weeks from 1/3/2018 through 3/30/2018) = 4x3x13 = 156 hrs 567 hrs + 156 hrs = 723 hrs	
Phase Reviews	LS	0	0	0		
Field Reviews	EA	0	0	0		
Total Project Manager Meetings				723	Total PM Meeting Hours carries to Task 3.6 above	

Notes:

1. If the hours per meeting vary in length (hours) enter the average in the hour/unit column.
2. Do not double count agency meetings between permitting agencies.
3. Project manager meetings are calculated in each discipline sheet and brought forward to Column D, except for Photogrammetry.

Task #13 - Electrical Design and Plans for Pump Station



ProCon Engineering, Inc.

MEP Engineering Consultants

August 2, 2017

Mr. Carlos Ribbeck, P.E.
Ribbeck Engineering Inc.
14335 SW 120 St. #205
Miami, FL 33186

Re: New Pump Station at Indian Creek Dr. and 32nd Street, Miami Beach.
Proposal/Contract for Electrical Engineering Design and Construction Phase Services.

Dear Carlos:

We are pleased to submit the following proposal/contract for professional services in connection with the above named project.

ProCon Engineering, Inc. proposes to furnish the professional services outlined below for Ribbeck Engineering Inc, hereinafter referred to as the Client of the scope outlined below for the fee stipulated herein.

I. BASIC SERVICES

A. DESIGN PHASE SCOPE OF SERVICES

1. Prepare electrical drawings and specifications for client's submittal to agencies.
2. Meetings with the Client during design: Not to exceed four (4).
3. Visit site to gather information and to verify existing conditions.
4. Scope of work will be as follows:
 - a) Engineer/Design/Specify electric power system to power three (3) new 80 HP 15,000 gpm each pumps with their own Variable Frequency Drive (460v 3ø 60 hertz), (1) 4 HP (480v 3ø 60 hertz) electric actuator for Sluice gate and Control Panel.
 - b) Engineer/ Design/ Specify a quick connect for a temporary portable generator to power pump station in case normal power is lost.

- c) Engineer/Design/Specify new electric service from FPL furnished and installed pad mounted step down transformer. ProCon will provide required transformer rating to FPL.
- d) Engineer/Design/Specify grounding for new electric service as required.
- e) Prepare electrical quantity take off as required by FDOT from transformer to loads.
- f) Engineer/Design/Specify controls for the pumps and sluice gate with the support of pump manufacturer.
- ★ g) Engineer/Design/Specify for a new stand-by generator with belly fuel tank to fully power pump station in case normal power is lost in lieu of a quick connect for a portable generator. (Add Alternate).

B. BIDDING PHASE SCOPE OF SERVICES

1. Attend Pre-Bid Meeting: Not to exceed one (1).
2. Respond to RFI's.
3. Preparation of addenda (if required).
4. Meeting to discuss bids.

C. CONSTRUCTION PHASE SCOPE OF SERVICES

PROCON shall not have control over or charge of and shall not be responsible for construction means, methods, techniques, sequences or procedures, or for safety precautions or programs, these being the sole responsibilities of the Contractor.

PROCON shall not be responsible for the Contractor's failure to carry out the work in accordance with the contract documents.

The sole responsibility of PROCON will consist of the following:

1. Drawing revisions for building department (if required).
2. Respond to RFI's.
3. Review shop drawings and equipment documentation as submitted by the Contractor

for conformance with the design documents.

4. Construction site visits/meetings and preparation of minutes: Not to exceed fourteen (14).
5. Prepare record documents from red-marked drawings provided by Contractor.

II. ADDITIONAL SERVICES

Additional services are not included in the basic services and shall only be provided if authorized by the Client in writing. Additional services shall include, but not be limited to the following:

1. The design of alternates in the contract documents or evaluation of substitutions proposed by the Client or contractor.
2. The preparation of equipment pre-purchase specifications for the project.
3. Field inspections or meetings beyond those specified herein.
4. Prepare record drawings other than purely based on information as provided by the contractors.
5. Construction cost estimates, other than engineering opinions of probable construction cost.
6. Special consultants, including but not limited to, Structural Engineers, Civil Engineers, Architects, etc.
7. Hidden or concealed conditions requiring additional design or consulting services.
8. Evaluating information related to and/or attending meetings with Client, Owner, contractor, subcontractor, or other design professionals not specifically addressed in the Basic Services.
9. Making revisions to plans, drawings, specifications or other documents when such revisions are: (a) inconsistent with approvals or instructions previously provided by the Client; or (b) required by the enactment or revisions of codes, laws or regulations subsequent to the original preparation of such documents.
10. The evaluation of substitutions or voluntary alternates proposed by the Client, Owner and/or contractor.
11. Providing services required due to changes in the Project including, but not limited to, size, quality, complexity, the Client's request to trim the design for Project budgetary purposes, or the Client's schedule adjustments or design preference.
12. Providing consultation and/or furnishing services related to replacement of construction work, whether or not related to the Basic Services, damaged by fire or other cause beyond the reasonable control of PROCON during construction, and furnishing services related to the replacement of such damaged work.
13. Providing consultation and/or furnishing services related to the default of the construction contractor, defects or deficiencies in the work by such contractor, or

failure of performance of either the Client, Owner, or construction contractor under the contract for construction.

14. Providing consultation and/or furnishing services pursuant to Client's request in preparing documents for alternate or sequential bids.
15. Providing consultation and/or furnishing services related to future facilities, systems, and equipment, when not specifically included in the Basic Services.
16. The re-performance of Basic Services and/or providing of additional services, of any nature, due to hidden or concealed conditions of the Site.
17. Providing prolonged contract administration and construction phase services as a result of owner delaying the construction phase because of scope changes, budget constraints or any other reason, or providing services to the Client during the Project bid phase which arise due to reasons outside PROCON'S control.
18. Providing any other services not otherwise specified within the Basic Services or any Change Order.
19. The evaluation, design or coordination of value engineering items proposed by client, owner, contractors or any other parties related to the project.
20. Commissioning of Electrical Systems.
21. Additional design efforts for dividing the project into separate phases or projects.
22. If the project is suspended for the convenience of the Client or Owner for more than six (6) months and then the project is resumed, PROCON shall be entitled to further compensation for Project Resumption expenses.
23. Extended services during the design phase as a result of Client or Owner delaying the design phase because of scope changes or budget constraints.
24. This proposal is made with the understanding that we reserve the right to submit a revised proposal if any requisite is further added by any governmental agency having jurisdiction over this project.
25. Any comments from Code Enforcement officials not directly related to our scope of design work which requires any additional work from PROCON.

III. SERVICES NOT INCLUDED

1. Civil Engineering.
2. Architectural Engineering.
3. Structural Engineering.
4. Mechanical Engineering.
5. Fire detection and suppression Engineering.

IV. FEES TO BE PAID

Project will be done on a fixed fee basis.

The amount of the fee to include the above services including Add Alternate but excluding reimbursables is \$52,250 broken down as follows:

Design Phase Services	\$24,000
*Add Alternate	\$12,000
Bidding Phase Services:	\$ 2,250
Construction Phase Services:	\$14,000

*Add alternate for the engineering/design of a stand-by generator to automatically power pump station if and when normal (FPL) power is lost in lieu of a quick connect for a portable generator.

Invoices will be sent monthly to the Client by ProCon for work completed during that month. The invoice amount will be determined on a percent of completion of the project during the calendar month.

The costs of blueprinting, reproductions, Fed-Ex and special messenger services will be billed at our cost and are not included in the fees quoted herein except for providing to Client three (3) sets of signed and sealed drawings.

PROCON Engineering Inc. will complete the engineering and design of this project no later than 6 weeks after receipt of notice to proceed from Client.

V. ASSUMPTIONS

1. Client will furnish PROCON floor plan and site plan in AutoCad files for this project.
2. Client will provide PROCON with electrical requirements and manufacturer specifications for each new machine or piece of equipment to be installed in the project area.
3. No UPS system.
4. No special grounding requirements.
5. Any testing services required during the design phase by PROCON will be arranged and paid for by Client.
PROCON will provide in writing the required testing scope and evaluation and review of the test results for compliance with the required scope.

VI. GENERAL CONDITIONS

1. Payments shall be made by the Client within thirty (30) days of the statement date or within 5 days of Client receiving payment.
2. If the scope of the project changes after this proposal is submitted, we reserve the right to submit a revised proposal based on the revised scope of work.
3. All governmental fees shall be paid by the owner/client.
4. The Client shall allow ProCon the right to terminate the agreement with five days notice in writing if the Client fails to perform its obligations as outlined in this Contract.
5. ProCon may, after five days written notice to Client, suspend services under this agreement until ProCon has been paid in full all amounts past due for services, expenses and charges.
6. In any action, suit or proceeding to enforce or interpret the terms of this contract, or to collect any amount due hereunder, the prevailing party shall be entitled to reimbursement for all costs and expenses reasonably incurred in enforcing, defending or interpreting its rights hereunder, including, but not limited to, all collection and court costs and all attorney's fees, whether incurred out of court, in the trial, on appeal, at bankruptcy, or administrative proceedings.

VII. AGREEMENT BY THE CLIENT

1. The Client agrees to assist ProCon – at no cost to ProCon – by furnishing available pertinent information and any other data relative to the performance of the services for the project.
2. The Client shall designate a person to act as the Client's representative with respect to the services to be performed under this agreement. Such person shall have complete authority to transmit instructions, receive information, interpret and define the Client's policies and decisions with respect to materials, equipment, elements and systems pertinent to ProCon's services.
3. The Client shall allow ProCon the right to terminate the agreement with five (5) days notice in writing if the Client fails to perform its obligations as outlined in this contract.
4. Invoices will be sent monthly to the Client by ProCon for work completed during that month. The Client recognizes that time is of the essence with respect to payment of ProCon's invoices, and that timely payment is a material part of the consideration of this agreement. The invoice amount will be determined on a percent of completion of the project during the calendar month.
5. The Client recognizes that time is of the essence with respect to payment of ProCon's invoices, and that timely payment is a material part of the consideration of this agreement. ProCon may, after five (5) days written notice to Client, suspend services under this agreement until ProCon has been paid in full all amounts past due for services, expenses and charges.

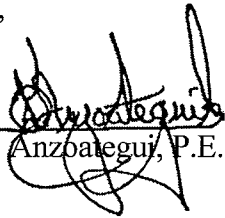
VIII. ACCEPTANCE

Acceptance of this proposal may be indicated by signature of a duly authorized official of the Client in the space provided below. One signed copy of this proposal returned to PROCON will serve as the notice to proceed. Should this proposal not be accepted within a period of thirty (30) days from the above date, it shall become null and void.

The Client recognizes that time is of the essence with respect to payment of ProCon's invoices, and that timely payment is a material part of the consideration of this agreement. Invoices shall be paid within thirty (30) days of the invoice date or within 5 days of Client receiving payment.

Thank you for the opportunity to submit this proposal/contract.

Sincerely,



Fernando Anzabategui, P.E., LEED® AP

President

Agreed to this day of _____, 2017.

RIBBECK ENGINEERING, INC

Signature

Name

Title

Task #14 - Supplemental to Task #5 - Lighting Post Design Services

Name of Consultant

Project Information Sheet

Financial Project Identification Number: _____

439228-1-58-01

Federal Aid Project Identification Number: _____

Name of Prime / Subconsultant:

TRACE Consultants, Inc.

County: Miami-Dade

Project Description:

SR A1A / Indian Creek Drive from 25 Street to 41 Street

Begin Milepost: _____

End Milepost: _____

Project Length: _____ Miles

Number of Lanes: _____

Typical Section: _____ (Urban / Rural / Int.)

Lane Configuration: _____ (Divided / Undivided)

Project Type: _____
(Minor / Major)

Proposed Post Design Contract Time: _____ months

form revised 06-27-07

Project Staff Hour Summary

Name of Consultant: **TRACE Consultants, Inc.**
 SR-A1A / Indian Creek Drive from 25 Street to 41 Street
 439228-1-58-01

Activity No.	Activity	Project Staff Hours										Total Hours					
		TRACE	Sub 1	Sub 2	Sub 3	Sub 4	Sub 5	Sub 6	Sub 7	Sub 8	Sub 9		Sub 10	Sub 11	Sub 12		
3	Project General Tasks	0															0
4	Roadway	0															0
5	Utilities	0															0
6	Structures	0															0
7	Signing and Marking	0															0
8	Signalization	0															0
9	Lighting	100															100
10	Landscape Architecture	0															0
	Project Total	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100

- Notes: 1. Staff hours for prime consultant come directly from each discipline's worksheet.
 2. Staff hours for subconsultants are to be entered manually into columns D through O.
 3. For workbooks prepared by subconsultants, their project hours will be totaled in column C.

Form Revised 04/04/06

ESTIMATE OF WORK EFFORT AND COST - PRIME CONSULTANT

Name of Project: SR 1A / Indian Creek Drive from 25 Street to 41 Street
 County: Miami-Dade
 FPN: 439228-1-58-01
 FAP No.:

Consultant Name: TRACE Consultants, Inc
 Consultant No.:

Date: 8/7/2017
 Estimator: Favio A. Laverde, PE

Staff Classification	Hours From "SH Summary - Firm"	Project Manager	Senior Engineer	Project Engineer	Engineer	Engineering Intern	Staff Classification 6	Staff Classification 7	Staff Classification 8	Staff Classification 9	Staff Classification 10	Staff Classification 11	Staff Classification 12	SH By Activity	Salary Cost By Activity	Average Rate Per Task
3. Project General Tasks		\$60.00	\$80.00	\$44.08	\$34.34	\$29.00										
4. Roadway																
5. Utilities																
6. Structures																
7. Signing and Marking																
8. Signalization																
9. Lighting	100	15	25	25	20	15								100	\$5,424	#DIV/0! \$54.24
10. Landscape Architecture	100	15	25	25	20	15								100	\$5,423.80	
Total Staff Hours		\$1,200.00	\$2,000.00	\$1,102.00	\$686.80	\$435.00									Check = \$5,423.80	\$5,423.80
Total Staff Cost																\$6,580.15

SALARY RELATED COSTS:
 OVERHEAD: 121.32%
 OPERATING MARGIN: 44.5%
 FCCM (Facilities Capital Cost Money): 0.185%
 EXPENSES:

SUBTOTAL ESTIMATED FEE:
 Subconsultant: Sub 1 \$14,427.79
 Subconsultant: Sub 2
 Subconsultant: Sub 3
GRAND TOTAL ESTIMATED FEE:

- Notes:
 1. This sheet to be used by Prime Consultant to calculate the Grand Total fee.
 2. Manually enter fee from each subconsultant. Unused subconsultant rows may be hidden.

Estimator: FAL

SR A1A / Indian Creek Drive from 25 Street to 41 Street
439228-1-58-01

Task No.	Task	Project Manager Meeting (EA)		Plans Revisions (EA)		Shop Drawing Reviews (EA)		Request for Information Resolution (EA)		Field Reviews (EA)		Total
		No of Mtgs	Hours / Mtg	Total Hours	No of Units	Hours / Unit	Total Hours	No of Units	Hours / Unit	Total Hours	No of Units	
3	General Task											0
4	Roadway/Drainage											0
5	Utilities											0
6	Structures											
7	Signing & Marking											
8	Signalization											
9	Lighting											0
10	Landscape Architecture					5	8	40				
												100
												100

Form Revised 06/27/07

Task #15 - Structural Supplemental for Additional work

Project Information Sheet

Financial Project Identification Number: NA
Name of Prime / Subconsultant: Bolton Perez & Associates
Project Description: Indian Creek Drive from 26th Street to 41st Street - Interim 1 & 2. Additional Work
Federal Aid Project Identification Number: NA
County: Miami-Dade

Begin Milepost: _____ **End Milepost:** _____ **Project Length:** _____ **Miles**
Number of Lanes: _____ **Typical Section:** _____ **(Urban / Rural / Int.)** **Lane Configuration:** _____ **(Divided / Undivided)**
Project Type: _____ **Access Management Classification:** _____ **Roadway Classification:** _____ **(NHS/FHIS/Of Sys.)**
CAP Level: _____ **TCP Level:** _____ **Survey Level:** _____
Design Variations: 1. _____ **Design Exceptions:** 1. _____
 2. _____
 3. _____
 4. _____
 5. _____

Proposed Design Contract Time: _____ **months/days** **Date of Negotiation:** _____

Project Activity:	Estimated By:		Negotiated By: (name - firm)	
	Consultant	FDOT	Consultant	FDOT
3. Project Common & Project General Tasks	Enter name & firm	Enter name & office	Enter name & firm	Enter name & office
4. Roadway Analysis	Enter name & firm	Enter name & office	Enter name & firm	Enter name & office
5. Roadway Plans	Enter name & firm	Enter name & office	Enter name & firm	Enter name & office
6a. Drainage Analysis	Enter name & firm	Enter name & office	Enter name & firm	Enter name & office
6b. Drainage Plans	Enter name & firm	Enter name & office	Enter name & firm	Enter name & office
7. Utilities	Enter name & firm	Enter name & office	Enter name & firm	Enter name & office
8. Environmental Permits	Enter name & firm	Enter name & office	Enter name & firm	Enter name & office
9. Structures Summary	Joaquin Perez, Bolton Perez & Associates	Enter name & office	Enter name & firm	Enter name & office
10. Structures - Bridge Development Report	Enter name & firm	Enter name & office	Enter name & firm	Enter name & office
11. Structures - Temporary Bridge	Enter name & firm	Enter name & office	Enter name & firm	Enter name & office
12. Structures - Short Span Concrete	Enter name & firm	Enter name & office	Enter name & firm	Enter name & office
13. Structures - Medium Span Concrete	Enter name & firm	Enter name & office	Enter name & firm	Enter name & office
14. Structures - Structural Steel	Enter name & firm	Enter name & office	Enter name & firm	Enter name & office
15. Structures - Segmental Concrete	Enter name & firm	Enter name & office	Enter name & firm	Enter name & office
16. Structures - Movable Span	Enter name & firm	Enter name & office	Enter name & firm	Enter name & office
17. Structures - Retaining Walls	Enter name & firm	Enter name & office	Enter name & firm	Enter name & office
18. Structures - Miscellaneous	Joaquin Perez, Bolton Perez & Associates	Enter name & office	Enter name & firm	Enter name & office
19. Signing and Pavement Marking Analysis	Enter name & firm	Enter name & office	Enter name & firm	Enter name & office
20. Signaling and Pavement Marking Plans	Enter name & firm	Enter name & office	Enter name & firm	Enter name & office
21. Signalization Analysis	Enter name & firm	Enter name & office	Enter name & firm	Enter name & office
22. Signalization Plans	Enter name & firm	Enter name & office	Enter name & firm	Enter name & office
23. Lighting Analysis	Enter name & firm	Enter name & office	Enter name & firm	Enter name & office
24. Lighting Plans	Enter name & firm	Enter name & office	Enter name & firm	Enter name & office
25. Landscape Architecture Analysis	Enter name & firm	Enter name & office	Enter name & firm	Enter name & office
26. Landscape Architecture Plans	Enter name & firm	Enter name & office	Enter name & firm	Enter name & office
27. Survey	Enter name & firm	Enter name & office	Enter name & firm	Enter name & office
28. Photogrammetry	Enter name & firm	Enter name & office	Enter name & firm	Enter name & office
29. Mapping	Enter name & firm	Enter name & office	Enter name & firm	Enter name & office
30. Terrestrial Mobile LIDAR	Enter name & firm	Enter name & office	Enter name & firm	Enter name & office
31. Architecture Development	Enter name & firm	Enter name & office	Enter name & firm	Enter name & office
32. Noise Barriers Impact Design Assessment	Enter name & firm	Enter name & office	Enter name & firm	Enter name & office
33. Intelligent Transportation Systems Analysis	Enter name & firm	Enter name & office	Enter name & firm	Enter name & office
34. Intelligent Transportation Systems Plans	Enter name & firm	Enter name & office	Enter name & firm	Enter name & office
35. Geotechnical	Enter name & firm	Enter name & office	Enter name & firm	Enter name & office

ESTIMATE OF WORK EFFORT AND COST - PRIME CONSULTANT

Name of Project
County
FPN
NA
FAP No.

Indian Creek Drive from 26th Street to 41st Street - Interim 1 & 2 Additional Work
Miami-Dade
NA
NA

Consultant Name: Bolton Perez & Associates
Proposal No.: 7/14/2017
Date: 7/14/2017
Estimator: Joaquin Perez

Staff Classification	Total Staff Hours From Summary	Chief Engineer	Sr. Project Engineer	Project Engineer	Engineer	Designer	Engineering Intern	Staff Classification 7	Staff Classification 8	Staff Classification 9	Staff Classification 10	Staff Classification 11	Staff Classification 12	SH By Activity	Salary Cost By Activity	Average Rate Per Task
3. Project General and Project Common Tasks	0	\$226.42	\$200.04	\$128.82	\$118.21	\$106.08	\$93.35	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	0	\$0	#DIV/0!
4. Roadway Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
5. Roadway Plans	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
6a. Drainage Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
6b. Drainage Plans	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
7. Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
8. Environmental Permits, Compliance & Clearances	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
9. Structures - Misc. Tasks, Dvgs. Non-Tech.	123	12	31	31	25	12	12	0	0	0	0	0	0	123	\$18,260	\$148.46
10. Structures - Bridge Development Report	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
11. Structures - Temporary Bridge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
12. Structures - Short Span Concrete Bridge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
13. Structures - Medium Span Concrete Bridge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
14. Structures - Structural Steel Bridge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
15. Structures - Segmental Concrete Bridge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
16. Structures - Movable Span	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
17. Structures - Retaining Walls	244	48	61	61	48	24	24	0	0	0	0	0	0	243	\$36,073	\$148.45
18. Structures - Miscellaneous	492	49	123	123	98	49	49	0	0	0	0	0	0	481	\$72,901	\$148.47
19. Signing & Pavement Marking Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
20. Signing & Pavement Marking Plans	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
21. Signalization Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
22. Signalization Plans	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
23. Lighting Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
24. Lighting Plans	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
25. Landscape Architecture Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
26. Landscape Architecture Plans	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
27. Survey (Field & Office Support)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
28. Photogrammetry	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
29. Mapping	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
30. Terrestrial Mobile LIDAR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
31. Architecture Development	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
32. Noise Barriers Impact Design Assessment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
33. Intelligent Transportation Systems Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
34. Intelligent Transportation Systems Plans	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
35. Geotechnical	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
Total Staff Hours	859	85	215	215	172	85	85	0	0	0	0	0	0	857	\$127,233.54	\$148.46
Total Staff Cost	\$20,095.28	\$43,009.25	\$27,695.44	\$20,331.60	\$9,017.14	\$7,084.84	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	Check =	\$127,233.54	\$127,233.54

Survey Field Days by Subconsultant
4 - Person Crew.

Notes:
1. This sheet to be used by Prime Consultant to calculate the Grand Total fee.
2. Manually enter fee from each subconsultant. Unused subconsultant rows may be hidden.

SALARY RELATED COSTS:
OVERHEAD: 0%
OPERATING MARGIN: 0%
FCCM (Facilities Capital Cost Money): 0.00%
EXPENSES: 0.00%
Survey (Field - / by Prime) 0 \$ / day
4-man crew days @
SUBTOTAL ESTIMATED FEE: \$127,233.54
Post Design Services - 15% Design Fee
Subconsultant: Sub 2 \$0.00
Subconsultant: Sub 3 \$0.00
Subconsultant: Sub 4 \$0.00
Subconsultant: Sub 5 \$0.00
Subconsultant: Sub 6 \$0.00
Subconsultant: Sub 7 \$0.00
Subconsultant: Sub 8 \$0.00
Subconsultant: Sub 9 \$0.00
Subconsultant: Sub 10 \$0.00
Subconsultant: Sub 11 \$0.00
Subconsultant: Sub 12 \$0.00
SUBTOTAL ESTIMATED FEE: \$146,318.57
Geotechnical Field and Lab Testing
SUBTOTAL ESTIMATED FEE: \$0.00
Optional Services \$0.00
GRAND TOTAL ESTIMATED FEE: \$146,318.57

Project Activity 9: Structures Summary and Miscellaneous Tasks and Drawings

Estimator: Indian Creek Drive from 26th Street to 41st Street - Interim 1 & 2 Additional Work
 Signature: NA

Representing	Print Name	Signature / Date
City of Miami Beach		
Bolton Perez & Associates		

NOTE: Signature Block is optional, per District preference

Task No.	Task	Units	Design and Production Staffhours				Comments				
			No. of Units	Hours per Unit	No. of Sheets	Total					
General Drawings											
9.1	Key Sheet and Index of Drawings	Sheet	1	8	1	8	Barrier Wall Retaining Drawings				
9.2	Project Layout	Sheet	1	24	1	24	Barrier wall retaining at 3 locations within the project limits				
9.3	General Notes and Bid Item Notes	Sheet	0	0	0	0					
9.4	Miscellaneous Common Details	Sheet	0	0	0	0					
9.5	Incorporate Report of Core Borings	Sheet	0	0	0	0					
9.6	Design Build Criteria	LS	1	0		0					
9.7	Assemble Plan Summary Boxes and Quantities	LS	1	0		0					
9.8	Cost Estimate	LS	1	0		0					
9.9	Technical Special Provisions	LS	1	0		0					
Structures - Summary and Miscellaneous Tasks and Drawings											
Subtotal			2			32					
Task No.	Task	Total	Task 10	Task 11	Task 12	Task 13	Task 14	Task 15	Task 16	Task 17	Task 18
10-16	Bridge 1	0	0	0	0	0	0	0	0		
10-16	Bridge 2	0									
10-16	Bridge 3	0									
10-16	Bridge 4	0									
10-16	Bridge 5	0									
10-16	Bridge 6	0									

Project Activity 17: Retaining Walls

Estimator: Indian Creek Drive from 26th Street to 41st Street - Interim 1 & 2 Additional Work
NA

Representing	Print Name	Signature / Date
City of Miami Beach		
Bolton Perez & Associates	Joaquin Perez	

NOTE: Signature Block is optional, per District preference

Task No.	Task	Unit	No. of Units	Hours/Unit	No. of Sheets	Total Hours	Comments
General Requirements							
17.1	Key Sheet	Sheet	0	0	0	0	
17.2	Horizontal Wall Geometry	Per Wall	3	12		36	3 Existing steel sheet pile walls
Permanent Proprietary Bulkhead Walls - City of Miami Beach Standard Design / Drawings							
17.3	Vertical Wall Geometry	Per Wall	0	0		0	
17.4	Semi-Standard Drawings	Sheet	0	0	0	0	
17.5	Wall Plan (Control Drawings)	Sheet	0	0	0	0	
17.6	Details	Sheet	0	0	0	0	
Permanent and Temporary Critical Steel Sheet Pile Walls							
17.7	Vertical Wall Geometry	Per Wall	0	0		0	
17.8	Design	EA Design	0	0		0	
17.9	Wall Plan and Elevations (Control Drawings)	Sheet	0	0	0	0	
17.10	Details	Sheet	0	0	0	0	
Barrier Retaining Wall over Existing Steel Sheet Pile Wall							
17.11	Design	EA Design	1	40		40	Barrier retaining with moment slab
17.12	Vertical Wall Geometry	EA Wall	3	12		36	
17.13	General Notes	Sheet	1	24	1	24	
17.14	Wall Plan and Elevations (Control Drawings)	Sheet	3	24	3	72	3 Existing steel sheet pile walls
17.15	Sections and Details	Sheet	1	24	1	24	
17.16	Reinforcing Bar List	Sheet	1	12	1	12	

Project Activity 17: Retaining Walls

Task No.	Task	Unit	No. of Units	Hours/Unit	No. of Sheets	Total Hours	Comments
Bulkhead Wall Permit Plans							
17.17	Wall Plans	Sheet	0	0	0	0	
17.18	Wall Plans	Sheet	0	0	0	0	
17.19	General Notes, Section and Panel Details	Sheet	0	0	0	0	
17.20	Sections and Details	Sheet	0	0	0	0	
17.21	Other Details	Sheet	0	0	0	0	
17. Structures - Retaining Walls Total					6	244	

Estimator:

Indian Creek Drive from 26th Street to 41st Street - Interim 1 & 2 Additional Work
NA

Representing		Print Name		Signature / Date	
City of Miami Beach					
Bolon Perez & Associates					

NOTE: Signature Block is optional, per District preference

Task No.	Task	Unit	No. of Units	Hours/Unit	No. of Sheets	Total Hours	Comments
Concrete Box Culvert							
18.1	Concrete Box Culverts	EA	0	0		0	
18.2	Concrete Box Culverts Extensions	EA Extension	0	0		0	
18.3	Concrete Box Culvert Data Table Plan Sheets	Sheet	0	0	0	0	
18.4	Concrete Box Culvert Special Details Plan Sheets	Sheet	0	0	0	0	
Strain Poles							
18.5	Steel Strain Poles	Initial Config	1	36		36	Temporary Signals
		EA Add'l Config	1	8		8	
18.6	Temporary Light Pole Foundations	EA Design	1	16		16	
		EA Add'l Config	0	0		0	
18.7	Temporary Light Pole Foundation Plan Sheets	Sheet	1	20	1	20	
18.8	Strain Pole Special Details Plan Sheets	Sheet	0	0	0	0	
Mast Arms							
18.9	Mast Arms	EA Design	9	9.777		88	4 New Mast Arms @ 8 hrs ea + 3 New Mast Arms @ 8 hrs ea + 2 existing mast arms @ 16 hrs ea = 88 hrs.
18.10	Mast Arms Data Table Plan Sheets	Sheet	2	4	2	8	
18.11	Mast Arm Special Details Plan Sheets	Sheet	0	0	0	0	
Overhead/Cantilever Sign Structures							
18.12	Cantilever Sign Structures	EA Design	1	24		24	
18.13	Overhead Span Sign Structures	EA Design	0	0		0	
18.14	Special (Long Span) Overhead Span Sign Structures	EA Design	0	0		0	
18.15	Monotube Overhead Sign Structure	EA Design	0	0		0	
18.16	Bridge Mounted Signs (Attached to Superstr.)	EA Design	0	0		0	
18.17	Overhead and Cantilever Sign Structures Data Table Plan Sheets	Sheet	1	4	1	4	
18.18	Overhead and Cantilever Sign Structures Special Details Plan Sheets	Sheet	0	0	0	0	
Lighting Foundations							
18.19	Non-Standard Lighting Foundation	EA Design	4	16		64	From 25th Street to 26th Street
18.20	Lighting Foundation Details Plan Sheets	Sheet	4	16	4	64	
Noise Barrier Walls (Ground Mount)							
18.21	Horizontal Wall Geometry	EA Wall	0	0		0	
18.22	Vertical Wall Geometry	EA Wall	0	0		0	
18.23	Summary of Quantities - Aesthetic Requirements	Sheet	0	0	0	0	
18.24	Control Drawings	Sheet	0	0	0	0	
18.25	Design of Noise Barrier Walls Covered by Standards	EA Design	0	0		0	
18.26	Design of Noise Barrier Walls Not Covered by Standards	EA Design	0	0		0	
18.27	Aesthetic Details	LS	1	0		0	
Special Structures							

18.28	Fender System	LS	1	0	0	0
18.29	Fender System Access	LS	1	0	0	0
18.30	Special Structures	LS	1	160	160	Additional Drainage Pump Station Design and plans
18.31	Other Structures	LS	1	0	0	0
18. Structures - Miscellaneous Total			4	160	160	492