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September 11, 2018

Terrence N. Bailey, LEED AP, P.E.  
Interim Director of Public Works  
City of Riviera Beach  
1481 15th St, Riviera Bch 33404

**Subject: CDBG FY 2018-2020 Improvements  
CMA Proposal No. P18.221.04**

Dear Mr. Bailey:

Chen Moore and Associates (CMA) is pleased to submit the attached of Services to provide civil engineering for the CDBG FY 17-18 Public Infrastructure Projects for the City of Riviera Beach. The scope of work will be performed in accordance with the continuing contract between Chen Moore and Associates and the City of Riviera Beach.

### **BACKGROUND**

The City of Riviera Beach has obtained Community Development Block Grant (CDBG) funding for street improvements. The project is separated into two phases as follows:

- CDBG 2018-19: Avenue M from 23rd Street to 27th Street
- CDBG 2019-20: 26th Court from Avenue M to 27th Street

The improvements will consist of water main replacement, sanitary sewer lining or repairs, roadway reconstruction, restriping and sidewalk repairs where missing, needed for condition, ADA compliance or non-confirming driveways.

The "Client" is the City of Riviera Beach (City)  
The "Consultant" is Chen Moore and Associates (CMA)

The anticipated submittals for the Project include:

90% Design  
Permit Documents  
100% Bid Documents

### **SCOPE OF SERVICES**

The professional engineering services and the associated fees are described below.

#### **TASK 1 - FIELD INVESTIGATION AND COORDINATION**

- 1.1 Survey Coordination: ENGINEER shall coordinate with a licensed surveyor in order obtain the required topographic data within the project limits.

- Right-of-way to right-of-way location of all above ground features
- Spot elevations at cross sections every 100-ft along the subject roadways
- Rim and Invert Elevations of Sewer Manholes
- Rim and Invert Elevations of Drainage Structures

This will not constitute a boundary or right-of-way survey as defined in the Minimum Technical Standards for Land Surveying and Mapping. Ownership and title searches are not included. Easements will be based on information obtained from record plats.

Portions of the survey have been completed under a different project. This scope of services will only perform survey in areas missing from previous project files.

- 1.2 Utility Coordination: ENGINEER will review all existing record drawings, design plans, utility atlases, and GIS data for the project area to develop the alignment of the proposed piping. ENGINEER shall perform a Sunshine One design ticket call, send letters to all identified utilities, collect utility location information and digitize utility locations for drawings. ENGINEER shall coordinate with a subsurface utility engineering (SUE) firm for the performance of up to 15 utility test holes to locate any existing underground utilities within the project limits. SUE firm shall provide equipment and labor, or the services of a qualified subconsultant, for exploratory subsurface test holes (“soft digs”) for certain existing underground utilities as determined by the ENGINEER.
- 1.3 Field Verification: ENGINEER shall conduct field visits to assess the existing conditions of the project area.
- 1.4 Geotechnical Coordination: ENGINEER will coordinate with a geotechnical engineering firm to perform pavement cores to assess the characteristics of the existing pavement and standard penetration tests (SPT) to assess the soil conditions. It is estimated that four (4) pavement cores and two (2) SPTs will be performed.
- 1.5 Sewer CCTV: ENGINEER will coordinate with a CCTV firm to televise the gravity sewer pipelines within the project area. ENGINEER will review CCTV reports and make recommendations for improvements.
- 1.6 Coordination with CITY: ENGINEER will coordinate with the CITY for the design parameters and project management.

## **TASK 2 – 90% DESIGN SUBMITTAL**

- 2.1 Plans: ENGINEER will prepare and submit 90% design drawings to Project Manager for review. The drawings will consist of the existing conditions and proposed design. The existing conditions plans will be based on survey, GIS data including parcels, aerials and CITY existing water and sewer data. Plans will consist of roadway mill and resurface and spot repairs, sidewalk replacement, ADA ramp replacement (including truncated domes), curb replacement, identification of obstructions to construction (fences, walls, trees, etc.), pavement markings, water

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main replacement, sanitary sewer rehabilitation and construction details. Chen Moore and Associates will submit up to 2 half size (11"x17") plan sets to the CITY as part of this submittal.

- 2.2 Technical Specifications: ENGINEER shall prepare technical specifications required to perform the work within the 90% plans.
- 2.3 Cost Estimate: ENGINEER shall submit a cost estimate of the probable construction costs which will reflect the proposed improvements included within the 90% design plans.
- 2.4 Progress Meeting CITY: ENGINEER will attend one review meeting with CITY to discuss the 90% plans and obtain any review comments.

### **TASK 3 –PERMITTING**

- 3.1 Permit Procurement: ENGINEER shall prepare and submit applications for the permits necessary to authorize the project to be bid. The potential permits include:
  - Palm Beach County Health Department (Water / Sewer Permits)

### **TASK 4 – 100% BID DOCUMENTS**

- 4.1 Design Submittal: ENGINEER shall prepare a 100% final design plan which addresses previous review comments from the CITY and all regulatory agencies including the plans and relevant. ENGINEER will submit up to 2 half size (11"x17") plan sets.
- 4.2 Contract Documents: ENGINEER shall prepare 100% construction documents including technical specifications, final quantity list and additional special provisions as required by the CITY.
- 4.3 Cost Estimate: ENGINEER shall prepare a final cost estimate which will indicate all construction costs for items within the final design drawings.

### **TASK 5 – BIDDING ASSISTANCE**

CMA will provide services during bidding.

- 5.1 Respond to Questions / Addendums: ENGINEER shall assist CITY by responding to all written inquiries made by contractors regarding utility relocation and prepare one addendum to clarify contract questions.
- 5.2 Bid Analysis: ENGINEER shall assist with bid analysis when necessary.

### **TASK 6 – REIMBURSABLES**

The following are estimated costs of reimbursable expenses. The CITY will only pay for those services which were used.

- 6.1 Printing: The costs for the printing and reproduction costs for submittal material will be billed to the CITY.
- 6.2 Survey: The costs for the topographic survey will be billed to the CITY.
- 6.3 Utility Locates: The costs for utility locates will be billed to the CITY.
- 6.4 Geotechnical Investigation: The costs for test holes will be billed to the CITY.
- 6.5 Sewer CCTV: The costs for sewer CCTV will be billed to the CITY.
- 6.5 Permit Fees: The cost for PBCHD water main permit will be billed to the CITY.

### **ASSUMPTIONS**

- This proposal does not include any services required for easement or right-of-way acquisitions.
- This proposal does not include any services during construction.
- All review comments from the CITY on each design submittal shall be provided to ENGINEER at one time. Any revisions due to additional comments may result in the need for additional services.
- Drainage design is not anticipated. South Florida Water Management District (SFWMD) drainage permits are not included.
- SFWMD water use permits for dewatering are not included.
- Limits of sidewalk replacement for ADA compliance will be based on general field observations. These limits may need to be adjusted during construction.
- Separate plan sets and separate permits will be prepared for each project phase (CDBG FY 2018-2019 and CDBG FY 2019-2020).

### **DELIVERABLES**

Chen Moore and Associates will provide the following deliverables at each submittal for each phase:

#### Design plans:

- 2 half size sets (11"x17") at 90% and 100% submittal
- 4 half size sets (11"x17") for permitting submittals
- 1 half size set (11"x17") for bidding purposes
- 1 digital CAD copy for bidding purposes
- 1 digital PDF copy for bidding purposes

#### Technical Specifications:

- 1 set at 90% submittal
- 1 set for bidding purposes

#### Digital Copies:

- Final Design Drawings (AutoCAD format)
- Final Design Drawings (PDF format)
- Technical specifications (Word format)

- Technical specifications (PDF format)

## SCHEDULE OF SERVICES

Chen Moore and Associates will complete Tasks 1 and 2 within 45 days of the Notice to Proceed (NTP). Task 3 will be completed within 14 days of receipt of comments on Task 2. Task 4 will be completed within 14 days of the approval of Task 3. Task 5 will be performed according to the CITY schedule. Task 6 will be performed in conjunction with the other tasks.

## ENGINEERING FEES

The fees for the above tasks are as follows.

TASK 1 – FIELD INVESTIGATION AND COORDINATION	\$6,075
TASK 2 – 90% DESIGN SUBMITTAL	\$24,820
TASK 3 - PERMITTING	\$830
TASK 4 – 100% DESIGN SUBMITTAL	\$5,850
TASK 5 – BIDDING ASSISTANCE	\$415
TASK 6 – REIMBURSABLES	\$23,850
<b>TOTAL</b>	<b>\$61,840</b>

The tasks will be billed according to the following schedule. Lump Sum Tasks will be billed on a monthly basis according to the percentage completion of the project. Reimbursable Expenses will be billed at cost to the CITY.

Lump Sum Tasks Total (Task 1 - Task 5)	\$37,990
Reimbursable Expenses (Task 6)	\$23,850
Total Budget	\$61,840

See Exhibit A for a breakdown of fees.

Should you have any questions, please do not hesitate to contact me at my office at (561) 746-6900 x1035, my cell phone at (954) 650-7996 or send me an electronic message at [sdombrowski@chenmoore.com](mailto:sdombrowski@chenmoore.com).

Respectfully submitted,



CHEN MOORE AND ASSOCIATES  
Suzanne Dombrowski, P.E., ENV SP  
Senior Engineer and West Palm Beach Branch Manager

Attachment(s): Exhibit A Fee Breakdown

**City of Riviera Beach**  
**CDBG FY 18-20 Public Infrastructure Projects**  
**Fee Breakdown**

Chen Moore and Associates Project # P18.221.04

	Subconsultant Costs	Professional Staffing					Total
		Clerical	Senior Technician	Project Engineer	Senior Engineer	Senior Project Manager	
Hourly Rate		\$60.00	\$95.00	\$115.00	\$140.00	\$185.00	\$240.00

**TASK 1 – FIELD INVESTIGATION AND COORDINATION**

1.1 Survey Coordination				2		1	\$415	
1.2 Utility Coordination		2	2	4		1	\$955	
1.3 Field Verification				16		8	\$3,320	
1.4 Geotechnical Coordination				2		1	\$415	
1.5 Sewer CCTV				1		2	\$485	
1.6 Coordination with City				1		2	\$485	
<b>Task 1 Total</b>		\$120	\$190	\$2,990	\$0	\$2,775	\$0	\$6,075

**TASK 2 – 90% DESIGN SUBMITTAL**

2.1 Plans			120	48		16	1	\$20,120
2.2 Technical Specifications				8		2		\$1,290
2.3 Cost Estimate			16	8		2		\$2,810
2.4 Progress Meeting CITY				2		2		\$600
<b>Task 2 Total</b>		\$0	\$12,920	\$7,590		\$4,070	\$240	\$24,820

**TASK 3 - PERMITTING**

3.1 Permit Procurement				4		2		\$830
<b>Task 3 Total</b>		\$0	\$0	\$460		\$370	\$0	\$830

**TASK 4 – 100% DESIGN SUBMITTAL**

4.1 Plans			24	12		4	1	\$4,640
4.2 Technical Specifications				2		1		\$415
4.3 Cost Estimate			4	2		1		\$795
<b>Task 4 Total</b>		\$0	\$2,660	\$1,840		\$1,110	\$240	\$5,850

**TASK 5 – BIDDING ASSISTANCE**

5.1 Respond to Questions/Addendums				2		1		\$415
5.2 Bid Analysis						1		
<b>Task 5 Total</b>		\$0	\$0	\$230	\$0	\$370	\$0	\$415

**TASK 6 – REIMBURSABLES**

6.1 Printing	\$250							\$250
6.2 Survey	\$1,100							\$1,100
6.3 Utility Locates	\$8,750							\$8,750
6.4 Geotechnical Investigation	\$4,600							\$4,600
6.5 Sewer CCTV	\$8,500							\$8,500
6.6 Permit Fees	\$650							\$650
<b>Task 6 Total</b>	\$23,850							\$23,850

**Task Summary**

TASK 1 – FIELD INVESTIGATION AND COORDINATION	\$6,075
TASK 2 – 90% DESIGN SUBMITTAL	\$24,820
TASK 3 - PERMITTING	\$830
TASK 4 – 100% DESIGN SUBMITTAL	\$5,850
TASK 5 – BIDDING ASSISTANCE	\$415
TASK 6 – REIMBURSABLES	\$23,850
TOTAL	\$61,840

**Task Breakdown by Type**

Lump Sum Tasks Total (Task 1 - Task 5)	\$37,990
Reimbursable Expenses (Task 6)	\$23,850
Total Budget	\$61,840

**Task Discipline Breakdown**

Task	General	Roadway	Utilities	Total
TASK 1 – FIELD INVESTIGATION AND COORDINATION	\$5,175.00	\$276.67	\$623.33	\$6,075.00
TASK 2 – 90% DESIGN SUBMITTAL	\$7,164.67	\$8,827.67	\$8,827.67	\$24,820.00
TASK 3 - PERMITTING			\$830	\$830.00
TASK 4 – 100% DESIGN SUBMITTAL	\$1,629.67	\$2,110.17	\$2,110.17	\$5,850.00
TASK 5 – BIDDING ASSISTANCE		\$207.50	\$207.50	\$415.00
TASK 6 – REIMBURSABLES	\$1,350.00	\$3,066.67	\$19,433.33	\$23,850.00
TOTAL				\$61,840.00