



CRAIG A. SMITH & ASSOCIATES

21045 Commercial Trail • Boca Raton, FL 33486

CONSULTING ENGINEERS • SURVEYORS • UTILITY LOCATORS

www.craigasmith.com

October 22, 2019

Ms. Tammy Good
City of Pompano Beach
1201 NE 5th Avenue
Pompano Beach, FL 33060

(via email)

**RE: POMPANO BEACH US1 & NE 14 STREET DRAINAGE IMPROVEMENTS
PROFESSIONAL ENGINEERING & SURVEYING SERVICES
CAS PROPOSAL NO. P3845**

Dear Ms. Good:

Craig A. Smith & Associates (CAS) is pleased to submit this proposal to provide professional engineering and surveying services for proposed drainage improvements for the US1 & NE 14 Street Causeway area referenced as Study Area #8 in the City's 2013 Stormwater Master Plan prepared by Chen Moore and Associates. The project area limits are approximately defined by NE 14 Street on the north, NE 12th Street on the south, N. Federal Hwy on the west side and NE 27th Terrace on the east side. The project drainage area is approximately 60 acres in size as described in the attached project limits, **Exhibit 1**. The project area is occupied primarily by residential properties with the exception of various commercial properties located along N. Federal Highway and NE 14 Street Causeway. CAS met with City of Pompano Beach (CLIENT) staff on July 17, 2019 to discuss the project design alternatives for providing drainage improvements to the area and identified various flood prone areas within the project limits as identified in Exhibit 1. Following the meeting, CAS was directed to evaluate options available for providing drainage improvements for the area with the goal of addressing flooding and water quality treatment to the greatest extent practical. Following the drainage evaluation, CAS is tasked to prepare the necessary construction plans and specification documents to bid the project. The proposed alternatives will examine the feasibility of exfiltration trench, improved pipe conveyance and swale improvements where feasible. Proposed improvements will use existing city-owned outfall systems within the project area where feasible and evaluate upsizing these systems. Per the City's direction and due to the City's maintenance concerns, pumping systems will not be evaluated as part of this proposal.

The anticipated CAS services include surveying, utility locates services, utility test holes, geotechnical engineering services (by others), engineering design, permitting and bidding services. Construction services and final certifications are not included as part of this proposal. Please note that contractor permits: dewatering permits or NPDES permits are not included in this proposal.

Information to be provided by the CLIENT:

- Existing as-built information, utility atlas and available GIS information for existing utilities (storm drainage, water and sewer) within the project area;
- City of Pompano Beach Stormwater Master Plan;
- City Standard Details for Construction in CADD format;
- City Front-end Specification Documents in MS Word Format
- Payment of all permit fees

Note: This information will be made available to the CAS upon notice to proceed with this project.

<u>TASK</u>	<u>DESCRIPTION</u>
--------------------	---------------------------

S85	UTILITY LOCATES – GPR/EM SERVICES
------------	--

Provide utility location and verification services within the corridor (described in S86 below). Using AWPAs standards for marking. Electromagnetic induction (EM) and Ground Penetrating Radar (GPR)

will be utilized to perform/verify horizontal locations of existing tone able and non-tone able utilities. Lines will be painted on the ground or pin flags set to show said lines on the surface.

CAS’S Lump Sum (LS) Fee for Task S85 shall be.....\$13,200.00

S86 ROUTE SURVEY

Survey will physically locate all above ground, visible improvements in roadways that lie between US 1 and the canal immediately east of NE 27th Terrace and NE 11th Court north to the NE 14th Street Causeway. A Survey baseline will be established at 100-foot intervals and cross-sections taken at 50-foot intervals to 10 feet beyond each right of way line. Plan view elevations will be shown as relative to National American Vertical Datum of 1988 at each section and at pertinent points for facilitation of Engineering Design. Trees 4” or greater will be located and shown. All visible, above ground utilities will be located and shown as well as those utilities as marked by CAS utility locates department on the surface. Up to 50 vacuum excavation areas (“soft digs”) will be located and the utility information as per CAS utility locates for each added to the Survey. A base map will be created and provided to the Engineering Department as well as a Map of Specific Purpose Survey for submittal to entities of interest.

CAS’S Lump Sum (LS) Fee for Task S86 shall be.....\$62,480.00

Note: 1.CAS will coordinate with the City to have the City clean out the existing drainage structures within the project limits prior to CAS’s commencement of surveying activities.

S90 UTILITY TEST HOLES (“SOFT DIGS”)

Utility test holes (soft digs) will be performed and reports provided for each with utility depth, elevation, size, material and type. The test holes will be performed based on the direction of the project engineer and limited to 50 test holes per this request.

CAS’S Fee for Task S90 shall be on a per hole basis at \$395.00 per hole\$19,750.00

E07 ENGINEERING DRAINAGE ANALYSIS

Based on surveyed information as described in Survey Task S86 above and information provided by the CLIENT, CAS will perform a preliminary drainage analysis to determine the feasibility of proposed site improvements for conformance with established drainage criteria. The drainage analysis will include pipe sizing analysis and will incorporate water quality treatment measures in the design in accordance with the South Florida Water Management District and Broward County permit requirements to the greatest extent practical. CAS will perform computer hydrologic and hydraulic modeling of the area for multiple design storm events of the current and proposed conditions and compare results. CAS’s will then discuss the results with the CLIENT in order to provide the CLIENT with a sufficient level of understanding related to the level of service that can be anticipated with the proposed drainage improvements in place. Please note that CAS’s scope and budget under Task E07 is limited to a drainage analysis of the project limits only and does not consider offsite improvements.

CAS’S Lump Sum (LS) Fee for Task E07 shall be.....\$19,824.00

E50 PRELIMINARY ENGINEERING DESIGN

Subsequent to completion of Task E07 (Engineering Drainage Analysis) above and in conformance with the requirements of the City of Pompano Beach, City Master Drainage plan and applicable minimum design standards, CAS shall prepare preliminary engineering plans. The Preliminary Engineering plans are to include the level of detail necessary to show paving, grading and drainage for the proposed improvements. Preliminary design shall comply with the rules and regulations of the City

of Pompano Beach, Broward County (Surface Water Management Licensing Division) and other jurisdictional requirements as applicable.

CAS'S Lump Sum (LS) Fee for Task E50 shall be.....\$31,155.00

Note: 1. The Preliminary Engineering Design Task will include one (1) submittal of 30% level design plans to the CLIENT for review and comment prior to commencement of the Final Engineering design task. 2. Offsite improvements beyond the project limits described are not included in this proposal.

E53 FINAL ENGINEERING DESIGN

Based upon CLIENT approval of the Preliminary Engineering Plans provided and described under Task E-50 above, CAS shall prepare Final Engineering Plans sufficient for permitting, bidding and construction of the proposed improvements. Plans are to include paving, grading and drainage improvements. Services under this task will also include preparation of technical specifications, bid form and construction estimate.

CAS'S Lump Sum (LS) Fee for Task E53 shall be.....\$34,644.00

Note: 1. The Final Engineering Design Task will include one (1) submittal of 90% level design plans and specifications to the CLIENT for review and comment. 2. Once the 90% design plans are approved by the CLIENT, CAS will use the Final Engineering Design plans to submit for Permits as outlined in Task E61 below. 3. Offsite improvements beyond the project limits described are not included in this proposal.

E61 PERMITTING SERVICES

CAS will provide technical criteria, written description and design data for use in filing applications for permits relative to CAS's scope of services with the governmental agencies having jurisdiction to review the design of the project. CAS will use the Final Engineering plans as detailed in Task E53 to file for applications with the permitting agencies listed below. Application and permit fees are the responsibility of the CLIENT and are not included within this agreement. The following regulatory agency permit application submittals are anticipated:

- City of Pompano Beach - Engineering
- Broward County– Surface Water Management License and SFWMD ERP Permits

CAS'S Lump Sum (LS) Fee for Task E61 shall be.....\$6,940.00

Note: 1. Construction dewatering (if proposed) or FDEP Notice of Intent - National Pollution Discharge Elimination Systems permitting are considered by CAS as contractor-type permits and are made part of the construction contract and the responsibility of the contractor.

E54 MEETINGS AND COORDINATION

Attend maximum of three (3) meetings with the CITY at the completion of the drainage analysis, 30% and 90% design levels to discuss the CITY review comments and any required revisions. Coordinate with City on providing project updates throughout the duration of the project.

CAS'S Lump Sum (LS) Fee for Task E54 shall be\$4,032.00

E15A BIDDING ASSISTANCE

After written authorization to proceed with the Bidding and Negotiating Phase from the CITY, CAS shall assist the City in providing responses to one (1) submittal of Bidder RFI's. RFI's received beyond the one (1) submittal will be considered additional services and not covered in this Task.

CAS'S Lump Sum (LS) Fee for Task E15A shall be.....\$1,344.00

Note: 1. At the request of the City, the services provided under this Task are limited and do not include attending the Pre Bid meeting, preparation of Bid related Addendums, bidder reference checks, verification of bidder qualifications, bid comparison tabulations, bid recommendation letter and revisions of plans to conform with issued Addendums. The services not included in this Task will be provided by the City.

E65

GEOTECHNICAL ENGINEERING SERVICES

Geotechnical engineering services will be provided by CAS Subconsultant. Subconsultant agreement is enclosed with this proposal.

Subconsultant Lump Sum (LS) Fee for Task E65 shall be.....\$2,700.00

SUMMARY OF COSTS

CAS proposes to accomplish the professional engineering services listed for the following total lump sum fee, which is the sum of the fees for each phase and its specific work tasks:

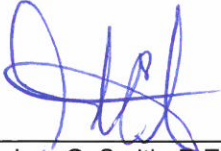
UTILITY LOCATES – GPR/EM SERVICES	\$13,200.00
ROUTE SURVEY	\$62,480.00
UTILITY TEST HOLES - SOFT DIGS	\$19,750.00
ENG. DRAINAGE ANALYSIS	\$19,824.00
PRELIMINARY ENGINEERING DESIGN	\$31,155.00
FINAL ENGINEERING DESIGN	\$34,644.00
PERMITTING SERVICES	\$6,940.00
MEETINGS AND COORDINATION	\$4,032.00
BIDDING ASSISTANCE	\$1,344.00
GEOTECHNICAL ENGINEERING SERVICES (SUBCONSULTANT)	\$2,700.00
TOTAL	\$196,069.00

ESTIMATED GRAND TOTAL: \$196,069.00

Pompano Beach US1 & NE 14 Street Drainage Improvements
October 22, 2019
Proposal P3845
Page 5 of 5

Thank you for your time and effort in supporting this project. Your business is appreciated. Your endorsement of this letter will be understood as CAS's Notice to Proceed with the project. If there are any questions please feel free to contact Frank Vilar at (954) 815-8898 (email: fvilar@craigasmith.com).

AGREED TO AND ACCEPTED BY:



Stephen C. Smith, P.E.
Vice President

City of Pompano Beach

Signature - Authorized Representative

Printed Name

Date

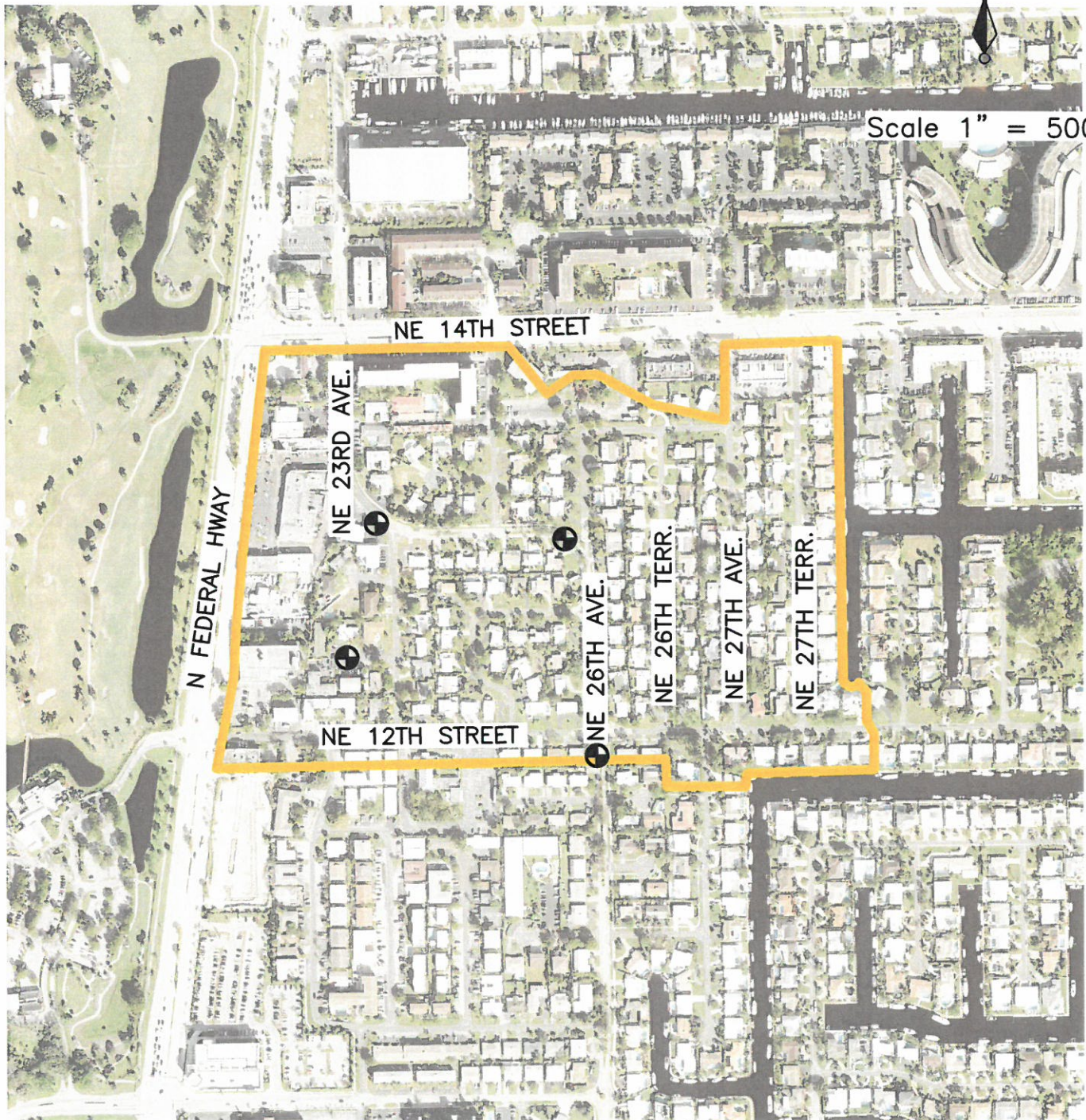
cc: File

\\cas-depot\Admin\PROPOSAL-ASSEMBLY_COMPLETED_PROPOSALS_2019 Proposals\3845-PompanoBeach-US1&NE14thStStormDrainageImprov\102219 Pompano Beach US1 and NE 14st.doc

EXHIBIT 1



Scale 1" = 500'



US-1 & NE 14TH STREET CAUSEWAY
DRAINAGE IMPROVEMENTS PROJECT
(STUDY AREA # 8)

LEGEND

PROJECT LIMITS



IDENTIFIED FLOODING
AREAS BY CITY

