

CRAIG A. SMITH & ASSOCIATES

PROPOSED SCOPE OF SERVICES, FEE REQUEST AND SCOPE OF WORK FOR

HALLANDALE BEACH TRI-PLEX SUBMERSIBLE LIFT STATION IMPROVEMENTS PROJECT

CAS PROPOSAL NO.: 0595

ENGINEERING SERVICES PROPOSAL

February 7, 2025



CRAIG A. SMITH & ASSOCIATES

CONSULTING ENGINEERS • SURVEYORS • UTILITY LOCATORS • GRANTS SPECIALISTS

1425 E. Newport Center Drive, Deerfield Beach, FL 33442

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City of Hallandale Beach
Triplex Submersible Lift Station Improvements Project
Proposal for Professional Services

CRAIG A. SMITH & ASSOCIATES

PROPOSED SCOPE OF SERVICES AND PROPOSED FEE

PROJECT NAME: CITY OF HALLANDALE BEACH TRIPLEX SUBMERSIBLE LIFT STATION IMPROVEMENTS PROJECT

CAS PROJECT NO.: 0595

PROPOSAL DESCRIPTION:

In accordance with RESOLUTION #2020-054, RFP# FY 2018-2019-012 Continuing Professional Services, the following scope of services is provided by Craig A. Smith & Associates (CAS) as requested by the City of Hallandale Beach (CITY) for the above referenced project. This proposal, when executed, shall be incorporated in and become an integral part of the Agreement for professional services between the CITY and CAS, hereafter referred to as the Agreement. Craig A. Smith & Associates (CAS) is pleased to provide this proposal to the City of Hallandale Beach for the preparation of revised engineering plans and specifications, engineering services during construction (ESDC), and construction observation services.

The purpose of this project is the conversion of the existing triplex wet-pit dry-pit pump station to a triplex submersible lift station. The existing pump station is located in-between the north eastern corner of the Gulfstream Race Track and the Golden Isles Park and Tennis Center on Layne Blvd. The station was constructed in 1969 and consisted of three centrifugal pumps, a 200 HP, a 60 HP, and a 15 hp. The city would like to convert the existing structure into a submersible lift station with three proposed 2,500 gpm submersible pumps. The proposed submersible pumps guide rails will extend from the bottom of the structure at elevation -18.50 to the top of the structure at elevation 13.0. The pumps will require the installation of three pump hatches to be installed into the existing 8-inch thick concrete roof slab and the 18-inch thick first floor slab for installation and removal of the proposed submersible pumps.

The proposed rehabilitation will include installing a new influent structure on the east side of the pump station in which the existing 30-inch diameter influent pipe will be exposed into a rectangular open channel type structure. The proposed structure will be approximately 20 deep where a mechanical sewage grinder rated at 2,500 gpm will be installed on a rail system for easy installation and removal. The proposed structure will be enclosed with a concrete top slab with an aluminum hatch to access the mechanical grinder for service and or removal.

The existing three level pump station structure will be converted into a submersible wetwell with three proposed 2,500 gpm submersible pumps installed along the existing north wall. The existing lower level of the structure measuring 23.5 feet x 23.5 feet x 8

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feet deep is approximately 33,047 gallons of wetwell volume. This will require the installation of six floor hatches to be cut into the existing structures 8-inch thick roof slab and the 18-inch thick first floor slab. The six proposed floor hatches will include safety cages under the hatch openings to prevent anyone from falling through.

The existing pumps, existing effluent piping, and the existing electrical controls will be removed from the structure's lower levels. The existing emergency generator will have to be removed from this site and replaced with the owner supplied generator`

The submersible pumps will discharge into a common header that will be installed on the first floor of the existing structure where the existing pump motors are currently mounted. The pumps discharge header will extend out of the building where it will have a magnetic flow meter installed in an above ground pipe assembly complete with bypass piping. The effluent pipe will then connect into the existing force main that leaves the site and eventually connects into the Hollywood WWTP.

The City of Hallandale Beach had decided to terminate the original project contractor for lack of performance. The contractor had purchased some of the equipment for this project. The City, with CAS's help, was able to inspect and inventory those purchased items which are now securely stored at the owner's utility compound.

This engineering proposal is to authorize CAS to provide additional professional engineering services to the City of Hallandale Beach to assist the City by supplying revised contract documents and specifications to allow the City to publicly re- bid the proposed triplex submersible lift station project. Craig A. Smith & Associates proposes to provide professional engineering design services and construction observation services during the construction phase of the project.

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OWNER/CLIENT: City of Hallandale Beach
Attn: Jeffery Odoms, Hallandale Beach Utility Director

ADDRESS: 630 NW 2nd Street, Hallandale Beach, FL 33009

PHONE: (954) 457 3042

GENERAL:

Craig A. Smith & Associates will provide professional services, engineering re-design, bidding services, and construction observation during the construction phase of the project. More specifically, the scope of work for the City of Hallandale Beach Triplex Submersible Lift Station Improvements Project includes the following tasks:

TASK 1 ENGINEERING DESIGN SERVICES:

Preparation of revised construction plans for re-bidding Hallandale Beach triplex submersible lift station improvements project. The scope of work includes the installation of an enclosed influent - grinder structure. The proposed influent grinder structure will allow the anticipated 3.60 MGD of sewer flows to flow through the proposed grinder assembly before entering the pump station thus macerating rags and influent solids that would normally foul the pumps.

The plans will also include the proposed 18-inch diameter effluent force main that will extend above grade out of the pump station structure where the above grade piping will have an installed magnetic flow meter, plug valves, and stainless steel pipe supports including by-pass piping for maintenance on the mag meter.

The existing pumps, electrical controls, discharge piping, diesel pump engine, airducts, vents, wall louvers, and all miscellaneous supports will be removed from the structure. The three owner-supplied Flygt submersible pumps will be installed against the north wall of the structure and its discharge pipes will be installed through the top floor where it will be departing the north wall of the structure at grade elevation. The header will extend out of the structure along the north exterior wall of the pump station where an above ground effluent magnetic flow meter assembly will be installed including all fittings, plug valves, and by-pass piping. The force main will then extend towards the SE where it will connect into the city's existing 18-inch force main.

The existing pump station structure will have portions of the first-floor windows, wall louvers, vents, and diesel engine intake wall plenum removed

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and or sealed. The structure approximate 21,000 ft³ of volume will have an air scrubber facility installed to evacuate the hydrogen sulfide gases indicative of this type of pump station.

CAS will need to revise the existing construction drawings to reflect the fact that some of the proposed piping was installed by the original contractor. The contract specifications will also need to be revised to reflect the owner supplying most of the equipment on the project. CAS will provide an Opinion of Probable Cost for the revised project based on this.

Lump Sum for Task: \$8,500

TASK 2 ELECTRICAL ENGINEERING, AND STRUCTURAL ENGINEERING

CAS has retained an electrical sub-consultant for the electrical design of the triplex submersible lift station improvements. The electrical engineers will be reviewing the remaining electrical shop drawings and will be available as needed during the construction and start-up of the pump station.

The structural engineer on our team will be responsible for evaluating the existing pump station's structural shop drawings in which only a few structural submittals we made with the original contractor who also failed to resubmit the rejected structural shop drawing submittals. The structural engineer will be available for inspection during the pump station's construction.

Lump Sum for Task: \$11,000.00

TASK 3 SERVICES DURING BIDDING:

Provide services during bidding, including preparation of any bid addenda, drawing revisions and attendance at the pre-bid meeting, coordination with contractors, and respond to bidders' questions. This includes responding to bidders' questions with the first two addendums, if additional addendums are required we will invoice the city on our standard hourly rates.

Lump Sum for Task: \$ 2,500.00

TASK 4 PRE-CONSTRUCTION MEETING SERVICES:

CAS will attend the pre-construction meeting to answer questions and provide signed and sealed construction drawings and hard copies of the contract specifications to execute the contract and issue the Notice to Proceed to the contractor. CAS attendees shall include the Senior Supervising Engineer and Senior Field Representative for observational services.

Lump Sum for Task: \$6,000.00

TASK 5 ENGINEERING SHOP DRAWING REVIEW

Project Engineer will review shop drawings and process the submittals from the contractor. Correspond with contractor on approval of all expected products to be installed on the project. Engineer will maintain a shop drawing log to document all submittals with dates submitted, reviewed, and returned.

Lump Sum for Task: \$5,000.00

TASK 6 ENGINEERING SERVICES DURING CONSTRUCTION (ESDC)

Provide, review, and process submittals from the contractor including review of the project's construction schedule, maintenance of traffic plan, construction materials and monthly contractor's pay requests. In addition, CAS engineer will make periodic site visits as required to address contractors concerns and review the construction status. The engineer will be present during the pump station and equipment start-up and the engineer will provide final engineering certification and project closeout documentation to confirm construction was completed in general conformance with the design documents. The engineer will review and approve the projects as-built record drawings, execute, and submit the FDEP Certification of Completion Forms.

This task is based on a 12-month project duration.

Lump Sum for Task: \$44,000

Task 7 CONSTRUCTION OBSERVATION SERVICES

Provide construction observation services for the anticipated 11 months of construction to include examination of the contractor's monthly pay applications, coordination with contractor and owner, part time site observation to ensure contractor compliance with approved construction plans, permits and standards, resolve field conflicts and aid the owner during construction.

Lump Sum for Task: \$100,000

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CAS proposes to accomplish the professional engineering services listed within three (3) months of the issued Work Authorization for the following total fees, which is the sum of the fees for each phase and its specific work task:

Task 1	ENGINEERING DESIGN SERVICES	\$8,500.00
Task 2	ELECTRICAL ENGINEERING, AND STRUCTURAL ENGINEERING SERVICES DURING CONSTRUCTION	\$11,000.00
Task 3	SERVICES DURING BIDDING	\$2,500.00
Task 4	PRE-CONSTRUCTION MEETING SERVICES	\$6,000.00
Task 5	CIVIL SHOP DRAWING REVIEW SERVICES	\$5,000.00
Task 6	ENGINEERING SERVICES DURING CONST.	\$44,000.00
Task 7	CONSTRUCTION OBSERVATION SERVICES	\$100,000.00
TOTAL ENGINEERING FEES		\$177,000.00

(Plus, hourly services in accordance with CAS's General Services Agreement)

ADDITIONAL SERVICES

Any service not specifically included in the agreement will be considered as an additional service. CAS will accomplish additional services upon proper written authorization of the client. The fees for additional services will be billed at our standard hourly rates or at a mutually agreed upon Lump Sum Fee. This proposal is based on a 12-month construction schedule if the construction exceeds that duration CAS time will invoice the City at our standard hourly rates.

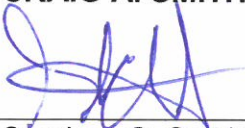
If you agree with the above scope of services and the terms, please sign in the authorization space provided below and return one (1) executed copy of this proposal via email (gregg@craigasmith.com) **or** mailed to our Deerfield Beach Office at 1425 East Newport Center Drive , Deerfield Beach, FL 33442 as notice to proceed.

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Should you have any questions or need additional information, please do not hesitate to contact this office.

AGREED TO AND ACCEPTED BY:

CRAIG A. SMITH & ASSOCIATES



Stephen C. Smith, P.E.
President

CITY OF HALLANDALE BEACH

Authorized Signature

Printed Name

Date

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