

CRAIG A. SMITH & ASSOCIATES

**PROPOSED SCOPE OF SERVICES AND
PROPOSED FEE**

**FOR
CITY OF LAUDERHILL
WATER TREATMENT PLANT EVALUATION &
RECOMMENDATIONS**

**CAS PROPOSAL NO.: OCASA-0320
ENGINEERING SERVICES PROPOSAL**

February 2024



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PROPOSED SCOPE OF SERVICES AND PROPOSED FEE

**PROJECT NAME: CITY OF LAUDERHILL WATER TREATMENT PLANT
ENGINEERING EVALUATION AND RECOMMENDATIONS**

CAS PROPOSAL NO.:OCASA-0320

PROJECT BACKGROUND:

The City of Lauderhill owns and operates a lime softening water treatment plant currently permitted for a rated capacity of 16 MGD. The original 8 MGD water treatment plant was built and commissioned for service in 1973 and was later expanded to 16 MGD.

The city has requested that Craig A. Smith & Associates (CAS) conduct a plant assessment consisting of an on-site review and evaluation of the water treatment plant including the raw water wells, the accelator lime softening units, the green leaf filters, the lime silo and chemical feed building, the sludge thickener, the vacuum filter building and its process equipment, the high service pumps and controls, the ground storage tanks, and the plant's office facilities. The purpose of this assessment is to ensure that the city's water treatment plant continues to produce and distribute safe drinking water for all of their potable water customers.

PROJECT DESCRIPTION:

The purpose of this engineering services proposal is to allow CAS to begin the proposed evaluation of the Lauderhill water treatment plant. The proposed water treatment plant evaluation will consist of CAS coordinating and working with the field service representatives from the various equipment manufacturers whose equipment is currently in use at the plant. The field service representatives will conduct on site equipment evaluations and produce a final report summarizing their observations with recommendations including replacement costs associated with their report(s).

CAS will work with the equipment representatives to prioritize the necessary repairs and/or replacements. CAS will evaluate the plant's electrical equipment with our sub-contractor, Smith Engineering Consultants (SEC).

GENERAL:

CAS will provide an engineering report summarizing the water treatment plant evaluations and recommendations. The report will include a description of each of the plant's major process components and will present the process and mechanical components needs, priority, age, and current condition, mechanical integrity and any

recommendations concerning repairs and or replacement of each of the plant components. The report will evaluate the following:

- The six raw water wells and associated components
- The two Infilco Degremont accelator solids contact clarifiers
- The two Infilco Degremont green leaf filters
- The clearwell and its five transfer pumps
- The three Integrity Municipal Systems lime slakers
- The lime slaker transfer pumps
- The three lime silos
- The lime slakers and chemical building, metering pumps, mixing tanks and the electrical controls
- The two lime sludge thickeners
- The five transfer pumps
- The aqua ammonia system including the metering pumps and scrubber
- The two ground storage tanks
- The five high service pumps and electrical controls
- The vacuum filter building
- The two emergency generators and electrical controls

More specifically, the scope of work is as follows:

TASK 1 ENGINEERING EVALUATION

CAS will conduct on site evaluations of the water treatment plant to inspect and document all of the water treatment plants mechanical and electrical process water treatment equipment. CAS will review the available as-built drawings and observe the operation of the plant equipment and work with the various equipment suppliers field service representatives. The equipment suppliers will assist us by having their field service representatives visit the site and thoroughly inspect and evaluate their process equipment. The plan is for each equipment supplier to put together their evaluation reports with associated costs to either make all of their recommended improvements or replace the worn-out equipment with new equipment.

CAS will conduct interviews with the water treatment plants mechanics and plant operators to document their concerns including their recommendations.

This task will include evaluating all the treatment components listed above in the general information section.

Lump sum for this task \$15,800

TASK 2 CONDUCT ON SITE INTERVIEWS

Conduct and document on site interviews with plant operators, mechanics and staff to determine any operational, mechanical, electrical and process problems, and discuss any compliance requirements. Schedule and meet

with the plant's equipment suppliers for an onsite inspection with their field service representatives.

Lump sum for this task: \$5,500

TASK 3 ELECTRICAL ENGINEERING EVALUATION

Our electrical engineers at SEC will conduct an initial site visit and review available record drawings and will observe the age and condition of the existing electrical equipment throughout the water treatment plant.

SEC will provide us with a condition assessment report as part of our overall plant assessment describing their findings and provide recommended improvement options with associated estimated costs.

The lump sum task includes one meeting with the owner to review their electrical recommendations.

Lump sum for this task: \$32,000

TASK 4 ENGINEERING EVALUATION REPORT

An engineering report will discuss our site inspection and evaluation of the water treatment plant documenting all of the process, electrical and mechanical equipment deficiencies. The engineering report will include recommendations concerning the plant's electro-mechanical components. The report will include field reports from the various equipment suppliers who will be making on-site inspections after which, they will submit their evaluations and recommendations which we will review and discuss in detail.

Lump sum for this task: \$24,830

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

TOTAL COST: \$78,130.00

ADDITIONAL SERVICES

Any service not specifically included in this 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.

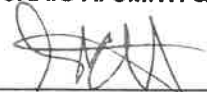
If you agree with the above scope of service, and the terms, please sign in the authorization space provided below and return one (1) executed copy of this proposal to our office at 1425 E. Newport Center Drive, Deerfield Beach, FL 33442 or email to ggiarratana@craigasmith.com as our notice to proceed.

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

CITY OF LAUDERHILL



Stephen C. Smith, P.E.

Authorized Signature

President

Print Name and Title

Date

cc Greg Giarratana
Daniel E. Shonk
File