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Sent Via Email ([RBEZERRA@hollywoodfl.org](mailto:RBEZERRA@hollywoodfl.org))

Roger Bezerra  
Project Manager (Public Utilities)  
**Department of Public Utilities - ESSD**  
**City of Hollywood**  
P.O. Box 229045  
Hollywood, FL 33022-9045

**Subject: Sanitary Sewer Lift Station E-06 Rehabilitation**  
**CMA Proposal No. P24.136.005**

Dear Mr. Bezerra,

Chen Moore and Associates (CMA) is pleased to submit the attached Agreement for Professional Consulting Services and Scope of Services to provide professional engineering services on the City of Hollywood Lift Station E-06 Rehabilitation Project. CMA will provide site investigation, topographic survey, utility coordination, engineering design services, regulatory permitting, bidding assistance and construction administration for this project. CMA will be responsible for the development of the design documents for the rehabilitation of Lift Station E-06.

### **PROJECT INTRODUCTION**

The City of City of Hollywood has requested a fee proposal from CMA to prepare the engineering design plans for the rehabilitation of the existing Lift Station E-06, which is located at the southeast corner of Funston St and S 14th Ave. Lift Station E-06 receives sanitary flows from gravity sewer service area for the E-06 Basin and a City of Hallandale Beach Force Main. The project includes the rehabilitation of the inside of the lift station with the installation of a new mechanical equipment including valves and piping, structural repairs and coating, complete replacement of all electrical, instrumentation, and HVAC ventilation system associated with this station. CMA shall be responsible for providing professional services necessary to prepare design plans and specifications according to the scope of services defined below.

### **SCOPE OF SERVICES**

#### **Task 1: Topographic Survey**

CMA shall retain a licensed surveyor to obtain the required topographic data for the lift station parcel area. CMA shall review topographic data upon completion of the survey. The survey shall also use a 3D scanner to obtain detailed dimensions inside of the structure. All work under this task will be billed on a lump sum basis.

**Deliverables:** The following deliverables shall be provided under this Task:

1. Signed electronic copy of the Topographic Survey
2. 3D Scan of building interior

## **Task 2: Document Review**

CMA will review all available topographic surveys, atlases, design drawings, and/or record drawings for existing utilities within the project area to determine the configuration of existing conditions. CMA will review all available drawings and documentation for the existing Lift Station E-06 facilities and associated sanitary system. CMA shall contact the Sunshine State One Call Service to determine the existing utilities which are located in the project area. As necessary, CMA will coordinate directly with all utility providers with existing infrastructure within the project area. CMA will perform necessary site visits to the project area for verification purposes. CMA will coordinate with City regarding operation and maintenance of the existing pump station to accommodate, the approximate location of all existing underground utilities will be incorporated into the design plans based on available drawings. All work under this task will be billed on a lump sum basis.

## **Task 3: Sanitary Flow Analysis**

Based on the data and information received from the City (service boundary, water consumption data, large user agreements, land use coverage, pump run time data, pump curves, and flow information), CMA will calculate wastewater flow projection for Lift Station E-06 under various scenarios. CMA will use the land use coverage to determine the number of Equivalent Residential Units (ERU) found within the service area for Lift Station E-06, which can be associated with an average daily flow demand. CMA will tabulate the past water consumption for all properties located within the service area of Lift Station E-06 which can be correlated to the sanitary flow for the basin. CMA will use the pump curve and pump run times to calculate the past flow rates through Lift Station E-06. CMA will use this compiled data to estimate the peak, average, and low sanitary flows through Lift Station E-06 over an annual, monthly, daily, and hourly basis. CMA will conduct a hydraulic analysis of the existing force main configuration to estimate the flow and pressure conditions under various scenarios for the purpose of estimating the impact on the pump run time at Lift Station E-06. CMA will calibrate the hydraulic model based on the pressure and flow data provided by the City. CMA will prepare multiple flow scenarios for model runs in order to determine the varying possible flow conditions and verify the selected pumps provide adequate flow capacity under the variable pressure conditions. Pumps will be sized based on this analysis and any technical additional information provided by the City. All work under this task will be billed on a lump sum basis.

## **Task 4: 60% Construction Documents**

CMA will prepare the design layout of the proposed lift station rehabilitation based on the new survey information along with the existing utility research and City staff input. CMA will prepare and submit required sets of design drawings to City. These design drawings will consist of the existing condition plans, demolition plans, replacement of pumps and piping, and standard detail drawings to allow the station to remain in service during construction by the use of a by-pass pumping system. CMA will retain an electrical engineering firm to prepare the electrical design for the proposed instrumentation and controls, instruments for pressure and bubbler system, ATS replacement, generator replacement, lighting, and HVAC ventilation for Lift Station E-06. CMA will also retain a structural engineer to check the adequacy of the openings in the slab to accommodate the new pumps, replacing ladder and catwalk structural framing, and review modifications to existing patch

on wall to ensure no water leaks. CMA will utilize the 60% design plans to prepare a construction cost estimate. All work under this task will be billed on a lump sum basis.

- CONSULTANT shall attend coordination meetings with the CITY to address review comments. CONSULTANT shall prepare the agenda, record and submit meeting minutes.

**Deliverables:** The following deliverables shall be provided under this Task:

1. One (1) electronic copy of the 60% plans
2. One (1) electronic copy of the revised opinion of probable construction cost
3. One (1) electronic copy of the technical specifications
4. One (1) electronic copy of design calculations
5. One (1) electronic copy of the Preliminary Engineering Report

#### **Task 5: 90% Design Submittal**

CONSULTANT shall incorporate the review comments from the 60% design submission in the 90% design submission. This task shall include, at a minimum, the following:

- a. Existing Conditions Plan
- b. Pump Station Plans
  - i. Mechanical – Notes & Legend, HVAC Plan, Sections, Details and Pump Data
  - ii. Structural – Notes & Legend, Structural Plan, Sections, Details, Foundations for Electrical Slab, Generator and Odor Control System
  - iii. Electrical – Notes & Legend, Electrical Plan, Power/Control (MPE) and Wiring Schedule, Electrical Control Panel and Typical Details, RTU Installation Wiring Diagrams, Panel Schedule.
  - iv. I&C – Notes & Legend, P&ID, Network Diagram, and Details
- c. Detailed design information including valves, structures, conflict elevations, separation of utilities, etc.
- d. Specialty details (structures, shoring, access, cross sections)
- e. Technical specifications
- f. Revised opinion of probable construction cost

All work under this task will be billed on a lump sum basis.

**Deliverables:** The following deliverables shall be provided under this Task:

1. One (1) electronic copy of the 90% plans
2. One (1) electronic copy of the revised opinion of probable construction cost
3. One (1) electronic copy of the revised technical specifications
4. One (1) electronic copy of design calculations

#### **Task 6: Regulatory Permit Submittal**

In conjunction with the Lift Station E-06 Replacement Project, CMA will obtain, review, and complete permit applications and will prepare backup documentation required by the regulatory permitting agencies. CMA will be responsible for coordination with all regulatory agencies during the permitting process. CMA will then send applications to City for review, signature and check(s) for all permit and application fees. Regulatory agencies anticipated to be involved are as follows:

- Broward County Environmental Protection and Growth Management Department
- Florida Department of Environmental Protection Wastewater
- City of Hollywood Building Department (Dry Run Review)

CMA will revise applications, plans, and technical specifications as per comments from these regulatory agencies. CMA shall assemble permit application packages within 30 calendar days after the receipt of review comments from the City on the 90% design submittal. The regulatory agencies typically complete their review within 30 calendar days after the permit submittal. The City will be responsible for providing all regulatory permit fees or reimburse consultant (for expediting purposes). All work under this task will be billed on a lump sum basis.

**Deliverables:** The following deliverables shall be provided under this Task:

1. Permit approvals from jurisdictional agencies

#### **Task 7: 100% Design Submittal**

CONSULTANT shall incorporate the review comments from the 90% design submission and from the regulatory agencies into the 100% construction documents. In addition to all documents provided at the 90% submittal, CONSULTANT shall also incorporate the following:

- a. Project narrative (to be incorporated in the bid package)
- b. Bid tabs
- c. Copies of all permits
- d. Technical Specifications

All work under this task will be billed on a lump sum basis.

**Deliverables:** The following deliverables shall be provided under this Task:

1. One (1) original set of the 100% design package (11" x 17" plan sheets), together with an electronic copy
2. One (1) original set, signed and sealed of the Final Plans and Specifications 100% design package (24" x 36" plan sheets), together with one (1) electronic copy
3. One (1) copy of the opinion of probable construction cost
4. One (1) copy of all permit approvals
5. One (1) electronic copy of the Technical Specifications

#### **Task 8: Bidding Assistance**

CMA will attend the Pre-Bid Meeting and will answer all questions and clarifications that are technical in nature. CMA will respond to all written questions requesting clarification of the technical documents for this project. CMA will review the bid results and make a recommendation for bid award. The City shall be responsible for bid advertisement, distribution of bid documents to interested bidders, processing all bid submittals, and verification that each bid submittal meets all Purchasing related requirements. CMA shall complete this task according to the schedule defined by the City for the bidding process. All work under this task will be billed on an hourly basis.

## **Task 9: Post Design Services**

### **Pre-construction services**

- Preconstruction meeting attendance - CONSULTANT shall attend a pre-construction meeting with the CITY, the Contractor and the CITY's Construction Manager.
- Shop drawings review – CONSULTANT shall review and respond to each shop drawings within 7 workdays of the submittal by the contractor.

### **Services During Construction**

- Respond to Requests for Information – CONSULTANT will review and respond to Requests For Information (RFI) from the contractor during construction operations. CONSULTANT shall prepare documentation required to clarify questions from the contractor.
- Review Pay Applications

Limited Construction Inspections - CONSULTANT shall perform inspections throughout the construction duration to conduct on-site observation/verification of construction. Inspection services provided by CONSULTANT verify general compliance with the plans and specifications for certification of the project. The budget for this task was developed based on the assumption of 6 hours per week over the estimated construction duration of 10 months, which would be 240 total hours. CMA shall complete this task according to the schedule established for the contractor.

- a. Pressure testing
  - b. Flushing
  - c. Connections to existing lines
  - d. Start-up testing
  - e. Generator testing
  - f. Cast in place concrete work
  - g. Pump Start-Up
- CONSULTANT shall prepare inspection reports and submit them to the CITY for review and approval.
  - Limited Progress Meetings Attendance – CONSULTANT shall attend progress meetings during construction. A total of 15 meetings are included. The CITY's Construction Manager will prepare meeting agendas and meeting minutes.
  - As-built Review - CONSULTANT shall review as-built data provided by the Contractors Licensed Surveyor. CONSULTANT shall provide comments for Contractor to address and make any corrections necessary.
  - Project Certification and Permit Closeout – After final as-builts are completed by the Contractor, CONSULTANT will submit certification packages to the regulatory agencies. CONSULTANT shall address comments provided by the agencies and obtain final certification from the permitting agencies as applicable.

All work under this task will be billed on an hourly basis.

## **Task 10: Reimbursable Expenses**

CMA shall provide all document reproduction required for each project deliverable to the City and regulatory agencies as defined within the scope. All printing costs for deliverable will be reimbursed by the City at cost.

## **SCOPE ASSUMPTIONS**

- The City shall provide any available as-builts and/or design plans for existing Lift Station E-06 facility.
- The City shall provide pump data for Lift Station E-06, which should include maintenance records, pump run times, and pump curves.
- The City shall provide available water consumption data for service area of Lift Station E-06.
- The City shall provide any available pressure data within force main system for pump selection.
- The City shall provide the City of Hallandale Beach Force Main flows.
- The City will provide all required permit fees.
- The City will reimburse CMA for any document reproduction costs for the construction documents to be provided to the City for progress submittals to the City and to the regulatory agencies for permit submittals.
- The design plans will be developed based on the available as-builts and/or design plans for existing Lift Station E-06, which will be provided by the City.
- This scope does not include any effort to confirm the presence of any existing utility easements within the project limits or to obtain new utility easements within the project limits. Additional services will be required if any easement related work is required by the City.
- This scope does not include the completion of utility test holes to verify the horizontal and vertical location of any existing underground utilities. Additional services will be required to complete the utility test holes within the project limits if necessary.
- This scope does not include geotechnical investigations as all work is scoped to be inside of building. Additional services will be required to complete geotechnical services within the project limits if necessary.

## **PROJECT SCHEDULE**

CMA shall start work immediately upon receipt of Notice to Proceed and official authorization from the City. The estimated project schedule listed below is based on the assumption that the Notice to Proceed to be issued by the City by November 2024. The estimated project schedule is also based on the assumption that the City will provide any review comments on design submittals within 14 days and regulatory agencies will provide any review comments on permit submittals within 30 days.

Consultant shall schedule work upon receipt of the signed approval for this project as required. Project is anticipated to have 8 month project design schedule, 4 month bid schedule, and 10 month project construction schedule.

<b>Description</b>	<b>Duration</b>	<b>Estimated Completion</b>
Design Services	240 days	June 2025
Bidding	120 days	October 2025
Construction Services	300 days	August 2026
Reimbursable Expenses	N/A	N/A

**PROJECT FEES**

The total project fees are as follows:

<b>Task</b>	<b>Consultant</b>	<b>Sub Consultant</b>	<b>Total Fee</b>
TASK 1 - Topographic Survey	\$0.00	\$7,700.00	\$7,700.00
TASK 2 - Document Review	\$9,339.90	\$0.00	\$9,339.90
TASK 3 - Sanitary Flow Analysis	\$11,074.58	\$0.00	\$11,074.58
TASK 4 - 60% Design Submittal	\$140,715.72	\$19,000.00	\$159,715.72
TASK 5 - 90% Design Submittal	\$116,446.79	\$19,500.00	\$135,946.79
TASK 6 - Regulatory Permit Submittal	\$11,405.12	\$11,600.00	\$23,005.12
TASK 7 - 100% Design Submittal	\$30,815.36	\$9,700.00	\$40,515.36
TASK 8 - Bidding Assistance *	\$3,240.34	\$2,700.00	\$5,940.34
TASK 9 - Post Design Services *	\$61,265.16	\$28,000.00	\$89,265.16
TASK 10 - Reimbursable Expenses	\$5,000.00	\$0.00	\$5,000.00
<b>TOTAL</b>	<b>\$389,302.97</b>	<b>\$98,200.00</b>	<b>\$487,502.97</b>

\* Hourly Basis NTE Fee

**Refer to attached Exhibit A for hourly breakdown and subconsultant breakdown.**

Please do not hesitate to contact me with questions via my cell phone at (772) 361-9759 or via email at [ddavila@chenmoore.com](mailto:ddavila@chenmoore.com).

Respectfully submitted,



CHEN MOORE AND ASSOCIATES  
Daniel Davila, PE  
Principal Engineer

GK/dd

Exhibit A: Fee Breakdown & Subconsultant Scope