



May 2, 2024

Ms. Wilhelmina Montero, P.E.
Senior Project Manager
City of Hollywood
Department of Public Utilities - ECSD
P.O. Box 229045
Hollywood, FL 33022-9045

Subject: **Proposal for Engineering Services
2024 WTP Maintenance Package B**

Dear Ms. Montero,

As requested, we have prepared the following proposed scope of services for this subject project.

Project Description

The City of Hollywood (City) owns and operates the Hollywood Water Treatment Plant (WTP) located at 3441 W. Hollywood Blvd. in Hollywood, FL. The City has requested Carollo Engineers, Inc. (CAROLLO) to provide engineering services related to the design, permitting and bidding assistance of the following items included in the 2024 WTP Maintenance Package B.

- Slakers 2 and 3 Removal and Installation and replacement of existing lime feed pumps in Silo No.2 and 3.
- Filters 7 through 18 Surface Wash Feed Line Replacement
- Fluoride System Replacement
- Sodium Hexametaphosphate (SHMP) Feed System Replacement
- MS/RO Chemical Floor Recoating
- Mud Pump Discharge and Suction Line Reconfiguration

Task 1 – Project Management, Kick-Off, and Administration

CAROLLO, through their project manager, will provide overall project management and communication between their staff and the City. Administrative efforts such as oversight of resources and design progress, budget control, and schedule will all be tracked and managed by the project manager. Likewise, the project manager will organize and facilitate project meetings and the development of meeting agendas and minutes throughout the course of the project. CAROLLO will conduct the following meeting as part of Task 1:

- Kickoff Meeting: Within two weeks of authorization from the City, CAROLLO will schedule an initial one (1 hour) kickoff meeting with City staff. The kickoff meeting agenda is expected to include the following:
 - » *Introduction of project team members*
 - » *Primary lines of communication*
 - » *Review of project background and scope*
 - » *Project schedules and milestones*
 - » *Data Needs/Requests*

Task 1 Deliverables

- Kickoff Meeting Agenda (PDF)
- Kickoff Meeting Minutes (PDF)

Task 2 – Data Review and Request for Information

CAROLLO will collect and review previous data and reports relating to the maintenance issues identified with the existing lime slakers, surface wash system, fluoride system, SHMP feed system, and MS/RO chemical floor. Data collection will include a variety of sources based on the best available data. The following data request list is anticipated, and additional data may be requested as needed.

- Master Planning and CIP planning documents
- Assessment/condition assessment information
- Record drawings of the lime softening system, filters, chemical feed and SHMP feed system, and MS/RO building
- AutoCAD files of the record drawings if available
- Structural drawings and/or reports of the MS/RO building.
- O&M Manuals, Vendor Manuals, equipment information and manufacturer cut sheets
- Applicable maintenance records and reports
- Applicable current project drawings and reports
- Purchase Orders, showing drawings, and data for Owner Direct Purchased (ODP) equipment

Task 3 – Detailed Design

CAROLLO shall prepare and submit to the City a Basis of Design Report (BODR), 60% detailed design documents, 90% detailed design documents (Permit Set), and a final bid ready set. The project manager will organize and hold review meetings following the submission of each detailed design deliverable to review and address City comments. The detailed scope of work for each project element is further detailed as follows:

- Slakers 2 and 3 Removal and Installation – design shall include development of bid documents to allow for removal and installation of new ODP slakers. Task to include provisions for repair and rehab of silo structure, replacement of existing lime slurry feed pump, electrical and I&C modifications for integrations of new equipment with existing WTP SCADA system.
 - » *In addition, new potable water line branches added at Silo No.1-4 for slaker dilution. The point of connection will be the overhead potable water line that current feeds the eyewash.*
 - » *Replacement of lime feed pumps in Silo No. 2 and 3*
- Filters 7 through 18 Surface Wash Feed Line Replacement – design shall include replacement of existing wash water feed lines to Filter 7 and 18 including replacement solenoids and wiring up to and including replacement of the relays (timers) at the existing termination panel. Work shall be limited to exterior of the filters.

- Fluoride System Replacement On-Call Support – the City is procuring and overseeing the replacement of the Fluoride System through a separate project. This task provides on-call support as requested by the City for tasks such as grant management support, construction support, and start-up and commissioning.
- SHMP System Upgrade – Replacement of existing SHMP system including storage tank, feed pumps, and flow control.
- MS/RO Chemical Floor Recoating – Rehab of the existing chemical areas at the MS/RO chemical storage area, including rehab of the existing sump, replacement of the pump out system, and preparation and recoating of the floors.
- Mud Pump Discharge and Suction Line Reconfiguration – design of modifications to reconfigure suction and discharge lines for mud pumps to facilitate maintenance and ensure proper pump performance.

3.1 - Basis of Design Report

CAROLLO will evaluate the information received during Task 2 to develop the BODR for the project. The BODR will include the following:

- An overview of the project.
- An overview of existing conditions.
- Evaluation of the existing lime slakers, filter surface wash system, fluoride system, SHMP feed system, and MS/RO floor coating to determine the necessary requirements and modifications for improvements.
- Identifying elements that will require replacements, upgrades, repairs, and/or re-coatings.
- Recommendations for construction sequencing and installations.
- An estimate of the life cycle of the proposed improvements.
- A preliminary opinion of probable cost.

Following the submission of a Draft BODR to the City, CAROLLO will schedule and hold a meeting to discuss the information and recommendations provided in the BODR. The City shall review the Draft BODR and provide comments prior to the review meeting to allow CAROLLO to prepare for discussion. A Final BODR will be submitted and will address and incorporate City comments and document the agreed upon recommendations.

Task 3.1 Deliverables

- Draft Basis of Design Report (PDF)
- BODR Review Meeting Agenda (PDF)
- BODR Review Meeting Minutes (PDF)
- Final Basis of Design Report (PDF)

3.2 - 60% Design

Using the Final BODR, CAROLLO will develop detailed design drawings and technical specifications to a 60% complete level. The following are anticipated drawing sheets:



The 60% design documents will be delivered to the City for review. CAROLLO will schedule and hold a meeting to present and review the 60% detailed design documents. The City shall review the 60% detailed design and provide comments prior to the review meeting to allow CAROLLO to prepare for discussion. The City's review comments will be logged, and responses will be provided along with the review meeting minutes.

Task 3.2 Deliverables

- 60% drawings including General, Civil, Structural, Mechanical, Electrical, and Instrumentation and Control Drawings.
- 60% Technical Specifications for major equipment and major elements of work using MasterSpec 16 Division standards and other City reference specifications when available..
- A preliminary Engineer's Opinion of Probable Construction Cost (OPCC) to a AACE Class 4.
- 60% Review Meeting Agenda (PDF)
- 60% Review Meeting Minutes (PDF)

3.3 - 90% Design

Using City comments and discussion from the 60% detailed design review meeting, CAROLLO will develop detailed design drawings and technical specifications to a 90% complete level. The 90% documents will address and incorporate all City comments into the design. CAROLLO will develop a full set of technical project specifications for incorporation into the City's procurement documents. Project specifications will be modified as necessary by CAROLLO to conform to the requirements of the City's standard front-end documents. CAROLLO will develop a conceptual construction schedule to determine the period of time required for construction and define substantial and final construction durations.

The 90% design documents will be delivered to the City for review. CAROLLO will schedule and hold a meeting to present and review the 90% detailed design documents. The City shall review the 90% detailed design and provide comments prior to the review meeting to allow CAROLLO to prepare for discussion. The City's review comments will be logged, and responses will be provided along with the review meeting minutes. In parallel, shall be suitable to initiate permitting review by the regulatory agencies identified in Task 4.

Task 3.3 Deliverables

- 90% drawings including General, Civil, Structural, Mechanical, Electrical, and Instrumentation and Control Drawings.
- 90% Technical Specifications for all project elements.
- Updated Engineer's Opinion of Probable Construction Cost (OPCC) to an AACE Class 2.
- Conceptual Construction Schedule
- 90% Review Meeting Agenda (PDF)
- 90% Review Meeting Minutes (PDF)

3.4 - Bid Ready Documents



Following the 90% review meeting and receiving the City's 90% review comments, CAROLLO will develop the bid set design documents. The bid set ready documents will address and incorporate all City comments into the design. The design will detail the requirements for bidding and construction of the project.

The 100% design documents will be delivered to the City for review. CAROLLO will schedule and hold a meeting to present and review the 100% detailed design documents. The City shall review the 100% detailed design and provide comments prior to the review meeting to allow CAROLLO to prepare for discussion. Design documents will be revised to address City comments and will be submitted for permitting review by the regulatory agencies identified in Task 4. The City's review comments will be logged, and responses will be provided along with the review meeting minutes.

Task 3.4 Deliverables

- 100% drawings including General, Civil, Structural, Mechanical, Electrical, and Instrumentation and Control Drawings.
- 100% Technical Specifications for all project elements.
- Updated Engineer's Opinion of Probable Construction Cost (OPCC)
- Updated Conceptual Construction Schedule
- 100% Review Meeting Agenda (PDF)
- 100% Review Meeting Minutes (PDF)

Task 4 – Permitting

It is anticipated that the Florida Department of Environment Protection (FDEP) may not require a permit for work that is considered maintenance and minor repairs, however, it is customary to notify and submit application for proposed plant improvements. CAROLLO will prepare an overview of the work, including procedures for any needed disinfection, and coordinate with FDEP prior to submitting for the construction permit for the proposed work

For the City of Hollywood required Building Division permits, the Consultant submit building application, address review comments from the Building Division through conditional approval, and maintain communication with the Building Department to keep building permit active until Contractor is awarded.

Task 4 Deliverables

- FDEP application and all RFIs/comments.
- Building Permit application and all RFIs/comments up to Conditional Approval.
- Signed and Sealed 100% detailed design drawings (PDF and hard copies, as required by the review agencies).

Task 5 – Bid Phase Support

CAROLLO will assist the CITY in procuring a contractor for construction of the project by providing the following services during the bidding process.



- Coordinate with the City's Purchasing Department to prepare the documents for bidding and in developing the advertisement for bid project description.
- Pre-Bid Conference: Attend one (1) Pre-Bid Conference and field visit.
- Bidder RFIs: Provide responses to bidder's Request for Information (RFI). The City will receive all bidders' questions and forward them to CAROLLO for review and response. CAROLLO will revise the responses based upon the City's comments in order to ensure they are acceptable to the City for amendment of the bid documents. The City will be responsible for receiving and distributing RFI responses to all bidders.
- Addendum: If in responding to bidder's questions, a significant clarification or change to the design is required, CAROLLO will prepare up to two (2) addenda to revise the Issued for Bid documents. The City will be responsible for receiving and distributing RFI responses to all bidders.
- Evaluation of Bids: Attend the bid opening. Prepare a tabulation of received bids and evaluate bids to confirm they are responsive and meet the minimum qualifications. It is assumed that the lowest bid will be reviewed first and if it confirmed that the bid is responsive and meets the minimum qualifications, then no additional bid reviews will be required. Should the lowest bid not meet requirements, the second lowest bid will be reviewed. It has been assumed that the City's Purchasing Department will also review the bids in order to determine they are responsive and meet the criteria for necessary bonds, insurance, M/WBE requirements, etc.
- Provide an award recommendation letter to the City.

City Responsibilities and Assumptions

Due to the nature and schedule of this project, certain assumptions apply to this Scope of Services. To the extent possible, these assumptions are stated within this document and are reflected in the budget.

1. If the project task requirements are different from the assumptions presented in this Scope of Services or if the CITY desires additional services, the resultant changes in scope will serve as a basis for amending this project assignment or initiating the development of a new project assignment as agreed upon by both the CITY and CONSULTANT.
 - a. CONSULTANT shall be entitled to rely upon the accuracy of information supplied by the CITY without independent review of evaluation.
 - b. The schedule provided is based on the timely receipt of the data from CITY.
 - c. The CITY shall pay for all fees associated with permitting.
 - d. The material terms of the "Agreement for General Consulting Services" dated September 20, 2023 (Agreement) supersedes and nullifies any and all assumptions outlined below that are contrary and/or conflict with said terms and conditions in said Agreement:
 - i. CONSULTANT shall perform the services required hereunder in accordance with the prevailing standard of care by exercising the skill and ability ordinarily required of consultants performing the same or similar services, under the same or similar circumstances, in the State of Florida.
 - ii. CONSULTANT makes no warranty that CITY's actual project costs, financial aspects, economic feasibility, schedules, and/or quantities or quality realized will not vary from CONSULTANT's opinions, analyses, projections, or estimates.

- iii. Documents, including drawings and specifications, prepared by CONSULTANT pursuant to this Service Authorization are not intended or represented to be suitable for reuse by CITY or others for this Project or on any other project. Any reuse of completed documents or use of partially completed documents without written verification or concurrence by CONSULTANT for the specific purpose intended will be at CITY's sole risk and without liability or legal exposure to CONSULTANT.
- iv. The services to be performed by CONSULTANT are intended solely for the benefit of the CITY. No person or entity not a signatory to this Service Authorization shall be entitled to rely on CONSULTANT's performance of its services hereunder, and no right to assert a claim against CONSULTANT by assignment of indemnity rights or otherwise shall accrue to a third party as a result of this Service Authorization or the performance of CONSULTANT's services hereunder.

COMPENSATION

We propose to conduct the requested work on an hourly rate fee for the total not-to-exceed fee of \$264,441.00. Breakdown by task is presented in the table below. Attachment A provides the level of effort estimated for each task.

Payment will be billed to the City based Article 6 of Professional Services Agreement between the City and Consultant for Continuing Contract for Engineering Services.

Task	Fee
Task 1: Project Management	\$ 18,625.00
Task 2: Data Review and Request for Information	\$ 5,425.00
Task 3: Detailed Design	\$ 209,133.00
Task 4: Permitting	\$ 16,580.00
Task 5: Bid Phase Support	\$ 14,678.00
Total	\$ 264,441.00

Schedule

The project start date will be the day of the approval of the Task Authorization. The following table summarizes the project schedule and basic dependencies.

Task	Task Name	Duration From NTP
-	Notice-to-Proceed	-
1	Project Management	30 weeks
2	Task 1 – Kickoff Meeting	2 weeks
3	Task 2 – Data Collection	4 weeks

4	Task 3.1 – 60% Design	10 weeks
5	Task 3.2 – 90% Design (Permit Set)	16 weeks
6	Task 3.3 – 100% Design (Bid Set)	22 weeks
7	Task 4 – Permitting	22 weeks
8	Task 5 – Bid Phase Support	30 weeks

We stand ready to discuss any questions you may have regarding these proposals and look forward to working with you.

Sincerely,
CAROLLO ENGINEERS, INC.

M. Angelica Gregory, PE
Contract Manager

Brian LeMay, PE
Principal Project Manager, Water

cc: Tung Nguyen, PE, PMP
Enclosures:



ATTACHMENT "A"

PROJECT FEES BREAKDOWN



Task Description		Carollo Labor Hours and Cost																Total Cost	
		Project Principal	QAQC/ Technical Advisor	Technical Advisor - Water Treatment	Project Manager/Process Mech Lead	Process Mechanical Principal Engineer	Process Mechanical Lead Engineer	I&C Principal	I&C Staff Engineer	Electrical Principal	Electrical Staff Engineer	Structural Principal	Structural Staff Engineer	CADD/Technician	Document Processing	Total Hours	Labor Cost		Expense
		Gregory	Hart	Reinbold	Desai	LaMay	Knickerbocker	Dinnan	Staff	Marrisa Petty	Staff	Joel Smason	-	Shannon Raustad	Shana Woody				
		\$275.00	\$298.00	\$298.00	\$263.00	\$275.00	\$199.00	\$275.00	\$155.00	\$275.00	\$155.00	\$275.00	\$155.00	\$155.00	\$113.00				
1	PROJECT MANAGEMENT	8	4	0	40	4	0	0	0	0	0	0	0	0	24	80	\$17,724.00	\$901.00	\$18,625.00
	1.1 Project Management, Reporting, Contract Administration	4			24	2									24	54	\$10,674.00	\$0.00	\$10,674.00
	1.2 Project Meetings	4	4		16	2									26	26	\$7,050.00	\$901.33	\$7,951.33
2	Data Review and Request for Information	0	0	0	4	0	4	2	4	2	4	2	4	0	0	26	\$5,358.00	\$67.00	\$5,425.00
	2.1 List of Data Requests				4		4	2	4	2	4	2	4		26	26	\$5,358.00	\$67.00	\$5,425.00
3	Detailed Design	0	8	26	140	63	270	33	88	31	94	17	64	164	24	1022	\$206,544.00	\$2,589.00	\$209,133.00
	3.1 Basis of Design Report and Review Meeting														0				
	Replacement Lime Feed Pumps and Installation Slakers 2 and 3			2	16	4	36	2	2	2	4	1	4	8	2	83	\$17,459.00	\$603.00	\$18,062.00
	Filters 7-18 Surface Wash Feed Line			2	8	2	16	1	2	1	8		1	8	2	51	\$10,155.00	\$0.00	\$10,155.00
	Fluoride System Replacement														0	0	\$0.00	\$0.00	\$0.00
	SHMP Feed Replacement		4	2	8	8	24	2	4	2	4		1	8	2	69	\$14,829.00	\$0.00	\$14,829.00
	MS/RO Sump Rehab and Recoating			2	8	4	24	1	2	1	4	1	4	8	2	61	\$12,417.00	\$0.00	\$12,417.00
															0		\$0.00	\$0.00	\$0.00
	3.2 90% Design Documents and Review Meeting																		
	Slakers 2 and 3 Removal and Installation			2	36	8	66	16	36	16	36	8	24	40	2	290	\$57,704.00	\$486.00	\$58,190.00
	Filters 7-18 Surface Wash Feed Line			2	4	8	24	4	8	2	12			24	2	90	\$17,320.00	\$0.00	\$17,320.00
	Fluoride System Replacement														0	0	\$0.00	\$0.00	\$0.00
	SHMP Feed Replacement		4	12	16	8	40	4	24	4	16	2	4	24	2	160	\$32,652.00	\$0.00	\$32,652.00
	MS/RO Sump Rehab and Recoating			2	12	8	24	2	8	2	8	4	24	36	2	132	\$24,934.00	\$0.00	\$24,934.00
															0		\$0.00	\$0.00	\$0.00
	3.3 Bid-Ready Design Documents and Review Meeting																		
	Slakers 2 and 3 Removal and Installation				2	1	4							2	2	11	\$2,133.00	\$1,500.00	\$3,633.00
	Filters 7-18 Surface Wash Feed Line				2	1	4							2	2	11	\$2,133.00	\$0.00	\$2,133.00
	Fluoride System Replacement				24	8									32	32	\$8,512.00	\$0.00	\$8,512.00
	SHMP Feed Replacement				2	2	4	1	2	1	2	1	2	2	2	21	\$4,163.00	\$0.00	\$4,163.00
	MS/RO Sump Rehab and Recoating				2	1	4							2	2	11	\$2,133.00	\$0.00	\$2,133.00
															0	0	\$0.00	\$0.00	\$0.00
4	PERMITTING	0	0	0	16	8	48	0	0	0	0	0	0	4	0	76	\$16,580.00	\$0.00	\$16,580.00
	4.1 Permit Application Submittals				16	8	48							4	76	76	\$16,580.00	\$0.00	\$16,580.00
5	BIDDING SERVICES	0	0	2	16	4	24	4	0	0	4	0	0	8	8	70	\$14,544.00	\$134.00	\$14,678.00
	5.1 Bid Phase Support			2	16	4	24	4			4			8	8	70	\$14,544.00	\$134.00	\$14,678.00
	TOTAL HOURS	8	12	28	216	79	346	39	92	33	102	19	68	176	56	1274			
	TOTAL COST	\$2,200.00	\$3,576.00	\$8,344.00	\$56,808.00	\$21,725.00	\$68,854.00	\$10,725.00	\$14,260.00	\$9,075.00	\$15,810.00	\$5,225.00	\$10,540.00	\$27,280.00	\$6,328.00		\$260,750.00	\$3,691.00	\$264,441.00