



Hazen and Sawyer  
4000 Hollywood Blvd., Suite 750N, North Tower • Hollywood, FL 33021

December 24, 2019

Clece Aurelus, P.E.

**CITY OF HOLLYWOOD**

Department of Public Utilities

Engineering and Construction Services Division

Post Office Box 229045

Hollywood, Florida 33022

Hollywood Southern Regional WWTP  
RAS Pump Station No. 1 Replacement CMS  
City Project No. 17-9523

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Dear Mr. Aurelus:

As requested, Hazen and Sawyer, P.C. (H&S) is pleased to offer engineering services during construction for the RAS Pump Station No. 1 Replacement project at the Hollywood Southern Regional Wastewater Treatment Plant (SRWWTP).

**BACKGROUND**

The existing RAS PS No. 1 was constructed in 1973 and is critical to the proper functioning biological process at the wastewater treatment plant. The electrical and mechanical equipment has reached the end of its useful life and requires replacement. Likewise, the RAS suction piping/valves and clarifier drain piping/valves external to the pump station will be replaced due to age, per City request. Additionally, the RAS Pump Station No. 1 building requires structural rehabilitation and architectural modifications, such as replacement of the roof, access hatches, and exhaust fan. Work also includes structural rehabilitation to Oxygenation Trains 1 & 2. As part of the work, the City also requested several RAS valves be retrofitted with electric actuation at various pump stations. The design work has been completed, the construction contract has been advertised, bids have been received and are being reviewed for award recommendation. As a result, this work order addresses engineering services during construction for the RAS Pump Station No. 1 Replacement project.

**SCOPE OF SERVICES**

**Task 1 – Construction Administration Services**

H&S shall provide limited services for the management of the project during the construction phase. Such management activities shall include limited coordination and general correspondence with the CITY, Construction Contractor and subcontractors as well as handling and processing of submittals. This task also includes requests for contract interpretations and clarifications required by the Contractor which do not result in the submittal of formal Requests for Information. At the City's request, the level of effort associated with this task is two (2) hours per week for a period of 95 weeks (660 calendar days for final completion).

### **Task 2 – Contract Interpretations and Clarifications**

H&S shall log requests for information and issue necessary technical interpretations and clarifications of the Construction Contract Documents in a timely manner. For purposes of estimating level of effort associated with this task, it is assumed that fifteen (15) requests for information will be addressed by H&S.

### **Task 3 – Orders for Change**

H&S shall develop/issue requests for routine project cost and/or schedule changes from the Contractor. Changes may be the result of unforeseen conditions or interferences arising during routine progress of work or additional improvements requested by CITY after the project bid date and processed as Change Orders or Field Orders. H&S shall evaluate the impact of the change request in terms of project cost and schedule. H&S shall prepare a recommendation of the change request and if accepted, a statement noting that the requested cost/schedule impacts are fair and reasonable. H&S' analysis of the change request shall be forwarded to CITY for processing. This Scope of Services has been based upon the preparation of four (4) Requests for Proposal and four (4) orders for change. It is noted that H&S' Scope of Services does not include claims analysis or litigation support.

### **Task 4 – Submittal Review**

H&S shall log, track, review and process shop drawings and any other submittals which the Construction Contractor is required to submit within twenty-one (21) working days of receipt of the submittal except for special items requiring longer review time if so noted in the Construction Contract Documents. The review shall be for conformance with the design intent and compliance with the information presented in the Construction Contract Documents. H&S shall determine the acceptability of materials and equipment proposed by the Construction Contractor. This Scope of Services has been based upon the review and processing of a maximum of sixty-five (65) submittals, including re-submittals.

### **Task 5 – Applications for Payment**

Upon review and acceptance by the RPR that the portion of the Work has been sufficiently completed in accordance with the Contract Documents, H&S shall process applications for payment and review accompanying data, confirm the amounts owed, and recommend approval of payments due the Contractor. It is understood that the H&S' recommendation of any payment requested in an application for payment constitutes a representation by H&S to the CITY, based on the on-site observations of construction in progress by the RPR that construction has progressed to the point indicated and on the review of the application for payment and the accompanying data and schedules. In addition, it is understood that to the best of H&S' knowledge, information and belief, the quality of construction is in substantial accordance with the Contract Documents; subject to an evaluation of construction upon substantial completion, to the results of any subsequent tests called for in the Contract Documents, and any qualifications stated in the recommendation; and that the Contractor is due the amount recommended. For the purposes of estimating the level of effort associated with this subtask, it is assumed that the H&S shall review up to twenty-two (22) pay requests.

### **Task 6 – Construction Meetings**

H&S shall attend meetings as follows:

Preconstruction Conference – H&S shall conduct a preconstruction conference attended by representatives of CITY and by the construction contractor. H&S shall provide the attendees with a written summary of the meeting which will be distributed electronically.

Construction Progress Meetings – As requested by the City during the project (up to a maximum of 15 meetings), H&S shall prepare an agenda, conduct a progress meeting with the Construction Contractor and the CITY to review project status and identify issues that may affect the project schedule. H&S shall produce and distribute via email a brief hand-written summary of critical issues discussed at each progress meeting and updated versions of shop drawing submittal, RFI, and Orders for Change logs.

### **Task 7 – Field Observation Services**

H&S shall conduct periodic on-site observations of construction to assist the City in determining if construction is proceeding in substantial accordance with the Contract Documents. Periodic observations for this effort are based on an average of one (1) hour per week during the 660 day construction period. It is important to note that in performance of the duties outlined herein, H&S shall not:

- Undertake any of the responsibilities of Contractor or its subcontractors, nor direct any of their work.
- Advise on or issue directions pertaining to any aspect of the means, method, techniques, sequences or procedures of construction unless such is specifically called for in the Contract Documents.
- Advise on, or issue directions about, safety precautions and programs related to the Contractor's Work.
- Approve any interruptions or modification of CITY's facilities without the approval of CITY.

This scope of services is based upon the assumption that the CITY shall provide a Resident Project Representative (RPR) to provide field observation services of the proposed Work. The RPR will perform the following duties and responsibilities:

- Attend pre-construction conference, progress meetings and other job conferences.
- Serve as the construction liaison, working primarily with the Contractor(s) superintendent(s) and plant staff.
- Advise the Construction Administrator of the construction progress.
- Assist in obtaining additional details or information when required at the job site.
- Conduct on-site observations of construction in progress (including specialized field tests) to assist in determining if construction is proceeding in substantial accordance with the Contract Documents.
- Inform the Contractor and Construction Administrator whenever the RPR believes that construction is unsatisfactory, faulty or defective, does not conform to the Contract

Documents or approved Shop Drawings, does not meet the requirements of any inspections, tests or approval required to be made, or has been damaged before final payment.

- Immediately inform the Contractor upon the commencement of any construction requiring a submittal, if the submittal has not been accepted.
- Visually review suitability and method of storage of materials, equipment and supplies delivered to the construction site.
- Verify that operating and maintenance procedures are available to the City before equipment start-up and operator training is conducted by the Contractor.
- Observe, record, and report appropriate details relative to testing and start-up procedures.
- Prepare and submit daily reports and project photographs to H&S and maintain a daily diary or log book, recording hours on the job site, weather conditions, data pertaining to questions of extras or deductions, list of visiting officials and representatives of manufacturers, fabricators, suppliers and distributors, daily activities, decisions, observations in general and specific observations in more detail as in observing test procedures. Record names, addresses and telephone numbers of Contractor, subcontractor and major supplier personnel.
- Accompany visiting inspectors representing public or other agencies having jurisdiction over the Project(s), and record the outcome of these inspections in the daily report.
- Review applications for payment with the Contractor for accuracy, back-up detail and completeness.
- During the course of construction, verify that certificates, warranties, maintenance and operation manuals and other data required to be assembled and furnished by the Contractor are applicable to the items actually installed.
- Before issuance of a determination of substantial completion, prepare a list of items requiring completion or correction, in concert with the CITY. Participate in the final inspection.
- Coordinate with the CITY and Contractor for necessary shutdowns and interruptions of CITY facilities.

## **Task 8 –Startup Services**

H&S shall coordinate and monitor startup activities of the project which encompass four separate testing events. A total of eighty (80) hours of onsite attendance is envisioned for the RAS pumps, VFDs, electric actuators, and associated equipment.

## **Task 9 – Project Closeout**

Upon receiving notice from the Contractor that the project is substantially complete, H&S, in conjunction with appropriate CITY staff, shall develop a “punch list” of the project. The “punch list” shall include items needing completion or correction prior to consideration of final acceptance. H&S shall develop the list with assistance from CITY. The list shall be forwarded to the Contractor by the CITY. Upon notification from the Contractor that all remaining “punch list” items have been

resolved, H&S, in conjunction with appropriate CITY staff, shall perform a final review of the finished project.

### **Task 10 – Record Drawings**

H&S shall prepare and distribute to the CITY within sixty (60) days of the date of receipt of final marked-up, red-lined field drawings from the Construction Contractor and CITY and all RPR daily reports, two sets of 22" x 34" signed and sealed prints of the 47 contract drawings. The record drawings shall incorporate those changes made during the construction process, based on the marked-up prints, drawings and other data furnished by the Construction Contractor and CITY to H&S with each pay application.

### **KEY ASSUMPTIONS**

- H&S shall not be responsible for the acts or omissions of any construction contractor, any construction subcontractor, the City's RPR, outside inspectors or any other person (except H&S' own employees, subconsultants or agents) at the project site.
- H&S shall not be responsible for construction contractor's means, methods, techniques, sequences or procedures of construction, or the safety precautions and programs incident thereto. H&S shall issue all technical instructions to the Contractor and shall interpret all technical requirements of the Construction Contract documents.
- H&S services during construction are provided on the basis that consulting services are minimized and that City staff provide support and direction during construction. This work order was prepared on the basis that City will provide inspection and financial tracking and administration.
- Use of collaborative software for document control and record keeping is not included.
- Normal 8-hour work days, 5 days per week are assumed.
- No materials testing/specialty materials observations by laboratories/specialty forms are included.
- Existing equipment is being replaced such that no additional customers, equipment or processes are being added, therefore O&M Manuals or O&M Manual updates are not included.
- No training by H&S is anticipated.
- Permitting services are not included.
- Permitting for requested changes or additional construction efforts and permit tracking will be performed by others and is not included.
- The development of conformed contract documents for construction are not included.
- The selected Contractor will maintain full responsibility for meeting safety and environmental regulations and conditions.
- The selected Contractor will be required to coordinate its work efforts with the City or its agent as required to allow for the timely construction observation of work.

- The City's RPR will receive and review Contractor applications for payment.

### **COMPENSATION**

<b><u>Description</u></b>	<b><u>Cost</u></b>
<b>Labor</b>	
Task 1 – Construction Administration Services	\$36,088
Task 2 – CDCs/RFIs	\$9,788
Task 3 – Orders for Change	\$9,881
Task 4 – Submittal Review	\$76,877
Task 5 – Applications for Payment	\$11,994
Task 6 – Construction Meetings	\$9,905
Task 7 – Limited Field Services	\$20,383
Task 8 – Startup Services	\$15,572
Task 9 – Project Closeout	\$7,786
Task 10 – Record Drawings	<u>\$5,553</u>
<b>Sub-Total Labor</b>	<b>\$203,827</b>
<b>Direct Expenses</b>	
Miscellaneous (postage, shipping, etc.)	<u>\$200</u>
<b>Sub-Total Direct Expenses</b>	<b>\$200</b>
 <b>TOTAL (Not-to-Exceed)</b>	 <b><u>\$204,027</u></b>

The services as outlined above will be performed on a not-to-exceed basis for \$204,027. A fee breakdown used to develop the fee is attached.

### **SCHEDULE**

Per the Contract Documents, a construction duration of 630 days to substantial completion and an additional 660 days to final completion is anticipated. We are prepared to proceed with these services immediately.

Engineering services for the project will be performed as part of our Professional Services Agreement for General Engineering Consultant Services (Agreement) dated October 2017. Services provided by Hazen and Sawyer, D.P.C. shall be limited to those services specifically identified in this work order.



We look forward to your reply. In the meantime, should you have any questions, please contact us.

Very truly yours,

**HAZEN AND SAWYER, P.C.**

A handwritten signature in blue ink, appearing to read "J. Philip Cooke".

J. Philip Cooke, P.E.  
Senior Associate

*Attachment*

c: File No. 4321-077/1.0  
J. McMahon

CITY OF HOLLYWOOD  
SOUTHERN REGIONAL WASTEWATER TREATMENT PLANT  
RAS Pump Station No. 1 Replacement CMS  
City Project No. 17-9523  
Fee Breakdown

<u>Tasks</u>	<u>Senior Associate</u>	<u>Senior Principal Engineer</u>	<u>Principal Engineer</u>	<u>Engineer</u>	<u>Draftsman</u>	<u>Secretarial</u>	<u>Subtotal</u>	<u>Cost</u>
LABOR								
Task 1 - Construction Administration Services	47	0	143	0	0	0	190	\$ 36,088
Task 2 - CDCs/RFIs	8	22	0	30	0	0	60	\$ 9,788
Task 3 - RFPs/Change Orders	4	36	0	0	24	0	64	\$ 9,881
Task 4 - Submittal Review	65	65	0	390	0	0	520	\$ 76,877
Task 5 - Pay Requests	0	66	0	0	0	0	66	\$ 11,994
Task 5 - Construction Meetings	12	0	34	0	0	15	61	\$ 9,905
Task 6 - Limited Field Services	48	0	47	0	0	0	95	\$ 20,383
Task 7 - Startup Services	16	48	16	0	0	0	80	\$ 15,572
Task 8 - Project Closeout	8	24	8	0	0	0	40	\$ 7,786
Task 9 - Record Drawings	2	0	0	23	23	0	48	\$ 5,553
Subtotal	210	261	248	443	47	15	1,224	\$ 203,827
DIRECT EXPENSES								
Miscellaneous (postage, shipping, etc.)								\$ 200
Subtotal								\$ 200
<b>Total (Not-to-Exceed)</b>								<b>\$ 204,027</b>