



## AGENDA REPORT

**Meeting Date:** October 20, 2015  
**Item Number:** E-13  
**To:** Honorable Mayor & City Council  
**From:** Mark Cuneo, City Engineer  
Vincent Chee, Civil Engineer  
**Subject:** AMENDMENT NO. 1 TO A PROFESSIONAL SERVICES AGREEMENT BETWEEN THE CITY OF BEVERLY HILLS AND GHD, INC. FOR ENGINEERING DESIGN AND CONSTRUCTION SUPPORT SERVICES FOR THE FY 13/14 REHABILITATION/UPGRADING OF THE CITY OF BEVERLY HILLS' REVERSE OSMOSIS (R.O.) WATER TREATMENT PLANT (JOB NO. 10102); AND

APPROVAL TO INCREASE THE PURCHASE ORDER TO GHD, INC. FOR ENGINEERING DESIGN AND CONSTRUCTION SUPPORT SERVICES IN THE AMOUNT OF \$273,897; AND

APPROPRIATION OF \$273,897 FROM THE WATER FUND.

**Attachments:**

1. Agreement No. 282-14
2. Amendment No. 1 to Agreement No. 282-14

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### **RECOMMENDATION**

Staff recommends that the City Council approve Amendment No. 1 to Agreement No. 282-14 with GHD, Inc. for additional engineering design and construction support services related to the rehabilitation/upgrading of the City's Reverse Osmosis Water Treatment Plant; approve an increase to the purchase order with GHD, Inc. in the amount of \$273,897; and appropriate \$273,897 from the Water Fund to Capital Improvement Project No. 795, Water Treatment Plant.

**INTRODUCTION**

This report is a request for City Council approval of an amendment to an agreement between the City of Beverly Hills and GHD, Inc. for additional engineering design and construction support services necessary for the Water Treatment Plant rehabilitation project. The Water Treatment Plant rehabilitation project has been completely designed and the construction is underway. The schedule for completing this work is unaffected by this request. However, the original scope of work for the design engineers did not include full construction management services to provide maximum oversight of the construction contract. This amendment will add those services, including portions of the oversight work that require specialized expertise and training.

**DISCUSSION**

On June 17, 2014, City Council approved an Agreement (282-14) with GHD for engineering design and construction support services for rehabilitation and operational upgrades to the City's Water Treatment Plant in an amount not to exceed \$420,000. On June 8, 2015, City Council awarded a construction contract to Canyon Springs Enterprises (Construction Contractor) in the amount of \$2,343,122.

The original agreement with GHD, Inc. included an estimate of the services and level of effort required to support the construction project. This estimate was developed prior to the initial design of the project and was based on certain assumptions for the scope of work and construction duration. Staff has determined that the scope of construction support services included in the original agreement must be increased to correspond to the expanded scope and duration of construction work. Additional resources are required from GHD, Inc. to provide construction management and specialized oversight of the contract work to insure the quality of the plant rehabilitation. This includes the services of certified special inspectors for field quality control of concrete and material testing in the laboratory. The scope of work also requires specialized services for factory witness of mechanical and electrical equipment during fabrication by the equipment manufacturer. The additional services are to be performed by GHD, Inc. and their sub-consultants on a time and materials basis in an amount not to exceed \$273,897. GHD, Inc.'s original contract amount for engineering design services and construction phase oversight services was an amount not to exceed \$420,000. With this amendment, GHD's total contract will be an amount not to exceed \$693,897.

**FISCAL IMPACT**

Funds for contractual services related to the engineering design and construction support services in the amount of \$273,897 are to be appropriated from the Water Fund to Capital Improvement Project No. 0795.

\_\_\_\_\_  
Don Rhoads  
Approved By



\_\_\_\_\_  
David Lightner  
Approved By



# **Attachment 1**

PROFESSIONAL SERVICES AGREEMENT BETWEEN THE  
CITY OF BEVERLY HILLS AND GHD, INC. FOR ENGINEERING  
DESIGN AND CONSTRUCTION SUPPORT SERVICES FOR  
THE FY13/14 REHABILITATION/UPGRADING OF THE CITY OF  
BEVERLY HILLS'S REVERSE OSMOSIS (R.O.) WATER  
TREATMENT PLANT (JOB NO. 10102)

NAME OF CONSULTANT: GHD Inc.

RESPONSIBLE PRINCIPAL OF CONSULTANT: Mark Donovan, Project Manager

CONSULTANT'S ADDRESS: 16451 Scientific Way  
Irvine, CA. 92618  
Attention: Mark Donovan, Project Manager

CITY'S ADDRESS: City of Beverly Hills  
455 N. Rexford Drive  
Beverly Hills, CA 90210  
Attention: David Lightner, Deputy City  
Manager/Director of Capital Assets

COMMENCEMENT DATE: June 18, 2014

TERMINATION DATE: December 31, 2015, unless extended  
pursuant to Section 2 of the Agreement

CONSIDERATION: Not to exceed \$420,000; and more  
particularly described in Exhibit A

PROFESSIONAL SERVICES AGREEMENT BETWEEN THE CITY OF BEVERLY HILLS AND GHD, INC. FOR ENGINEERING DESIGN AND CONSTRUCTION SUPPORT SERVICES FOR THE FY13/14 REHABILITATION/UPGRADING OF THE CITY OF BEVERLY HILLS'S REVERSE OSMOSIS (R.O.) WATER TREATMENT PLANT (JOB NO. 10102)

THIS AGREEMENT is made by and between the City of Beverly Hills (hereinafter called "CITY"), and GHD INC. (hereinafter called "CONSULTANT").

RECITALS

A. CITY desires to have certain services and/or goods provided as set forth in Exhibit A (the "Scope of Work"), attached hereto and incorporated herein.

B. CONSULTANT represents that it is qualified and able to perform the Scope of Works.

NOW, THEREFORE, the parties agree as follows:

Section 1. CONSULTANT's Scope of Work. CONSULTANT shall perform the Scope of Work described in Exhibit A in a manner satisfactory to CITY and consistent with that level of care and skill ordinarily exercised by members of the profession currently practicing in the same locality under similar conditions. CITY shall have the right to order, in writing, changes in the Scope of Work. Any changes in the Scope of Work by CONSULTANT must be made in writing and approved by both parties. The cost of any change in the Scope of Work must be agreed to by both parties in writing.

Section 2. Time of Performance. CONSULTANT shall commence its services under this Agreement upon the Commencement Date or upon a written receipt of a notice to proceed from CITY. CONSULTANT shall complete the performance of services by the Termination Date set forth above and/or in conformance with the project timeline established by the City Manager or his designee.

The City Manager or his designee may extend the time of performance in writing for two additional one-year terms or such other term not to exceed two years from the date of termination pursuant to the same terms and conditions of this Agreement.

Section 3. Compensation.

(a) Compensation. CITY agrees to compensate CONSULTANT for the services and/or goods provides under this Agreement, and CONSULTANT agrees to accept in full satisfaction for such services, a sum not to exceed the Consideration set forth above and more particularly described in Exhibit B, attached hereto and incorporated herein, based on the Project Budget and Summary set forth in Exhibit B.

(b) Expenses. The amount set forth in paragraph (a) shall include reimbursement for all actual and necessary expenditures reasonably incurred in the performance of this Agreement (including, but not limited to, all labor, materials, delivery, tax, assembly, and installation, as applicable). There shall be no claims for additional compensation for reimbursable expenses.

(c) Additional Services. CITY may from time to time require CONSULTANT to perform additional services not included in the Scope of Services. Such requests for additional services shall be made by CITY in writing and agreed upon by both parties in writing.

Section 4. Method of Payment. Unless otherwise provided for herein, CONSULTANT shall submit to CITY a detailed invoice, on a monthly basis or less frequently, for the services performed pursuant to this Agreement. Each invoice shall itemize the services rendered during the billing period and the amount due. Within 30 days of receipt of each invoice, CITY shall pay all undisputed amounts included on the invoice. CITY shall pay CONSULTANT said Consideration in accordance with the schedule of payment set forth in Exhibit B.

Section 5. Independent Contractor. CONSULTANT is and shall at all times remain, as to CITY, a wholly independent contractor. Neither CITY nor any of its agents shall have control over the conduct of CONSULTANT or any of CONSULTANT's employees, except as herein set forth. CONSULTANT shall not, at any time, or in any manner, represent that it or any of its agents or employees are in any manner agents or employees of CITY.

Section 6. Assignment. This Agreement shall not be assigned in whole or in part, by CONSULTANT without the prior written approval of CITY. Any attempt by CONSULTANT to so assign this Agreement or any rights, duties or obligations arising hereunder shall be void and of no effect.

Section 7. Responsible Principal(s)

(a) CONSULTANT's Responsible Principal set forth above shall be principally responsible for CONSULTANT's obligations under this Agreement and shall serve as principal liaison between CITY and CONSULTANT. Designation of another Responsible by CONSULTANT shall not be made without prior written consent of CITY.

(b) CITY's Responsible Principal shall be the City Manager or his designee set forth above who shall administer the terms of the Agreement on behalf of CITY.

Section 8. Personnel. CONSULTANT represents that it has, or shall secure at its own expense, all personnel required to perform CONSULTANT's Scope of Work under this Agreement. All personnel engaged in the work shall be qualified to perform such Scope of Work.

Section 9. Permits and Licenses. CONSULTANT shall obtain and maintain during the Agreement term all necessary licenses, permits and certificates required by law for the provision of services under this Agreement, including a business license.

Section 10. Interests of Consultant. CONSULTANT affirms that it presently has no interest and shall not have any interest, direct or indirect, which would conflict in any manner

with the performance of the Scope of Work contemplated by this Agreement. No person having any such interest shall be employed by or be associated with CONSULTANT.

Section 11. Insurance.

(a) CONSULTANT shall at all times during the term of this Agreement carry, maintain, and keep in full force and effect, insurance as follows:

(1) A policy or policies of Comprehensive General Liability Insurance, with minimum limits of Two Million Dollars (\$2,000,000) for each occurrence, combined single limit, against any personal injury, death, loss or damage resulting from the wrongful or negligent acts by CONSULTANT.

(2) A policy or policies of Comprehensive Vehicle Liability Insurance covering personal injury and property damage, with minimum limits of One Million Dollars (\$1,000,000) per occurrence combined single limit, covering any vehicle utilized by CONSULTANT in performing the Scope of Work required by this Agreement.

(3) Professional Liability Insurance [check if applicable]

A policy or policies of Professional Liability Insurance (errors and omissions) with minimum limits of One Million Dollars (\$1,000,000) per claim and in the aggregate. Any deductibles or self-insured retentions attached to such policy or policies must be declared to and be approved by CITY. Further, CONSULTANT agrees to maintain in full force and effect such insurance for one year after performance of work under this Agreement is completed.

(4) Workers' compensation insurance as required by the State of California.

(b) CONSULTANT shall require each of its sub-consultants to maintain insurance coverage which meets all of the requirements of this Agreement.

(c) The policy or policies required by this Agreement shall be issued by an insurer admitted in the State of California and with a rating of at least a B+;VII in the latest edition of Best's Insurance Guide.

(d) CONSULTANT agrees that if it does not keep the aforesaid insurance in full force and effect CITY may either immediately terminate this Agreement or, if insurance is available at a reasonable cost, CITY may take out the necessary insurance and pay, at CONSULTANT's expense, the premium thereon.

(e) At all times during the term of this Agreement, CONSULTANT shall maintain on file with the City Clerk a certificate or certificates of insurance on the form set forth in Exhibit C, attached hereto and incorporated herein, showing that the aforesaid policies are in effect in the required amounts. CONSULTANT shall, prior to commencement of work under this Agreement, file with the City Clerk such certificate or certificates. The general liability insurance shall contain an endorsement naming the CITY as an additional insured. All of the policies required under this Agreement shall contain an endorsement providing that the policies cannot be canceled or reduced except on thirty (30) days prior written notice to CITY, and specifically

stating that the coverage contained in the policies affords insurance pursuant to the terms and conditions as set forth in this Agreement.

(f) The insurance provided by CONSULTANT shall be primary to any coverage available to CITY. The policies of insurance required by this Agreement shall include provisions for waiver of subrogation.

(g) Any deductibles or self-insured retentions must be declared to and approved by CITY. At the option of CITY, CONSULTANT shall either reduce or eliminate the deductibles or self-insured retentions with respect to CITY, or CONSULTANT shall procure a bond guaranteeing payment of losses and expenses.

Section 12. Indemnification.

(a) Indemnity for Design Professional Services. In connection with its design professional services, CONSULTANT shall hold harmless and indemnify CITY, and its elected officials, officers, employees, servants, designated volunteers, and those CITY agents serving as independent contractors in the role of CITY officials (collectively, "Indemnitees"), with respect to any and all claims, demands, damages, liabilities, losses, costs or expenses, including reimbursement of attorneys' fees and costs of defense (collectively, "Claims" hereinafter), including but not limited to Claims relating to death or injury to any person and injury to any property, which arise out of, pertain to, or relate to in whole or in part to the negligence, recklessness, or willful misconduct of CONSULTANT or any of its officers, employees, subcontractors, or agents in the performance of its design professional services under this Agreement.

(b) Other Indemnities. In connection with any and all claims, demands, damages, liabilities, losses, costs or expenses, including attorneys' fees and costs of defense (collectively, "Damages" hereinafter) not covered by Section 12(a), CONSULTANT shall defend, hold harmless and indemnify the Indemnitees with respect to any and all Damages, including but not limited to, Damages relating to death or injury to any person and injury to any property, which arise out of, pertain to, or relate to the acts or omissions of CONSULTANT or any of its officers, employees, subcontractors, or agents in the performance of this Agreement, except for such loss or damage arising from the sole negligence or willful misconduct of the CITY, as determined by final arbitration or court decision or by the agreement of the parties. CONSULTANT shall defend Indemnitees in any action or actions filed in connection with any such Damages with counsel of CITY's choice, and shall pay all costs and expenses, including all attorneys' fees and experts' costs actually incurred in connection with such defense. CONSULTANT's duty to defend pursuant to this Section 12(b) shall apply independent of any prior, concurrent or subsequent misconduct, negligent acts, errors or omissions of Indemnitees.

(c) All duties of CONSULTANT under this Section 12 shall survive termination of this Agreement.

Section 13. Termination.

(a) CITY shall have the right to terminate this Agreement for any reason or for no reason upon five calendar days' written notice to CONSULTANT. CONSULTANT agrees to cease all work under this Agreement on or before the effective date of such notice.

(b) In the event of termination or cancellation of this Agreement by CITY, due to no fault or failure of performance by CONSULTANT, CONSULTANT shall be paid based on the percentage of work satisfactorily performed at the time of termination. In no event shall CONSULTANT be entitled to receive more than the amount that would be paid to CONSULTANT for the full performance of the services required by this Agreement. CONSULTANT shall have no other claim against CITY by reason of such termination, including any claim for compensation.

Section 14. CITY's Responsibility. CITY shall provide CONSULTANT with all pertinent data, documents, and other requested information as is available for the proper performance of CONSULTANT's Scope of Work.

Section 15. Information and Documents. All data, information, documents and drawings prepared for CITY and required to be furnished to CITY in connection with this Agreement shall become the property of CITY, and CITY may use all or any portion of the work submitted by CONSULTANT and compensated by CITY pursuant to this Agreement as CITY deems appropriate.

Section 16. Records and Inspections. CONSULTANT shall maintain full and accurate records with respect to all matters covered under this Agreement for a period of twenty years. CITY shall have access, without charge, during normal business hours to such records, and the right to examine and audit the same and to make copies and transcripts therefrom, and to inspect all program data, documents, proceedings and activities.

Section 17. Changes in the Scope of Work. CITY shall have the right to order, in writing, changes in the scope of work or the services to be performed. Any changes in the scope of work requested by CONSULTANT must be made in writing and approved by both parties.

Section 18. Notice. Any notices, bills, invoices, etc. required by this Agreement shall be deemed received on (a) the day of delivery if delivered by hand during the receiving party's regular business hours or by facsimile before or during the receiving party's regular business hours; or (b) on the second business day following deposit in the United States mail, postage prepaid to the addresses set forth above, or to such other addresses as the parties may, from time to time, designate in writing pursuant to this section.

Section 19. Attorney's Fees. In the event that either party commences any legal action or proceeding to enforce or interpret the provisions of this Agreement, the prevailing party in such action shall be entitled to reasonable attorney's fees, costs and necessary disbursements, in addition to such other relief as may be sought and awarded.

Section 20. Entire Agreement. This Agreement represents the entire integrated agreement between CITY and CONSULTANT, and supersedes all prior negotiations, representations or agreements, either written or oral. This Agreement may be amended only by a written instrument signed by both CITY and CONSULTANT.

Section 21. Exhibits; Precedence. All documents referenced as exhibits in this Agreement are hereby incorporated in this Agreement. In the event of any material discrepancy between the express provisions of this Agreement and the provisions of any document incorporated herein by reference, the provisions of this Agreement shall prevail.

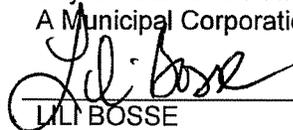
Section 22. Governing Law. The interpretation and implementation of this Agreement shall be governed by the domestic law of the State of California.

Section 23. CITY Not Obligated to Third Parties. CITY shall not be obligated or liable under this Agreement to any party other than CONSULTANT.

Section 24. Severability. Invalidation of any provision contained herein or the application thereof to any person or entity by judgment or court order shall in no way affect any of the other covenants, conditions, restrictions, or provisions hereof, or the application thereof to any other person or entity, and the same shall remain in full force and effect.

EXECUTED the 17<sup>th</sup> day of June, 2014, at Beverly Hills, California.

CITY OF BEVERLY HILLS  
A Municipal Corporation



\_\_\_\_\_  
LILI BOSSE  
Mayor of the City of Beverly Hills, California

ATTEST:



\_\_\_\_\_  
BYRON POPE  
City Clerk (SEAL)

CONSULTANT: GHD Inc.



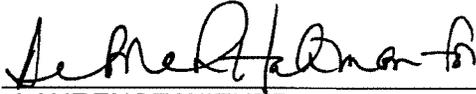
\_\_\_\_\_  
BOB VILKER  
Southwest Operating Center Manager



\_\_\_\_\_  
DUNCAN FINDLAY  
General Counsel

[Signatures continue]

APPROVED AS TO FORM:



LAURENCE WIENER  
City Attorney

APPROVED AS TO CONTENT:



JEFFREY C. KOLIN  
City Manager



DAVID LIGHTNER  
Deputy City Manager/Director of Capital  
Assets



MARK CUNEO  
City Engineer



KARL KIRKMAN  
Risk Manager

## EXHIBIT A

### SCOPE OF WORK

CONSULTANT shall perform the following services in connection with the Fiscal Year 2013-14 Rehabilitation/Upgrading of CITY's Reverse Osmosis (or "RO") Water Treatment Plant:

## Scope of Work

### PHASE 1 – DESIGN

#### Task 1.1 – Project Management

Task 1.1.1 – Kick-Off Meeting (**Meeting #1**): CONSULTANT's Project Manager Mr. Donovan will schedule and conduct the kick-off meeting at CITY's office. Project scope of work, schedule, budget, standards, expectations, and other pertinent items shall be reviewed. An updated project schedule shall be provided in both hardcopy and electronic formats. A meeting agenda shall be prepared by CONSULTANT 24 hours prior and the associated draft minutes within three (3) working days after the meeting. Final meeting minutes shall incorporate CITY comments and be published for the record in both hardcopy and digital (pdf) formats.

Task 1.1.2 – Weekly Coordination Meetings (**Total = 20 in 4 months**): Weekly coordination meetings shall be held with CITY staff to discuss and review project status, submittal and overall progress. Again; a meeting agenda, an updated schedule and budget status shall be prepared by CONSULTANT prior to each meeting in addition to a meeting agenda prepared 24 hours prior and the associated draft minutes within three (3) working days after the meeting with final meeting minutes incorporating CITY comments and being published for record in both hard copy and digital (pdf) formats.

Task 1.1.3 – Technical Workshops (**Total = 2**): CONSULTANT shall conduct the first of two workshops with CITY staff following the Preliminary Design Report (PDR) submittal, to provide professional guidance and discuss a) findings of the plant assessment and b) potential solutions to mitigate the H2S issue and California Department of Public Health (CDPH) observations. The second workshop shall be conducted following CITY's review of the Draft Final Design Submittal to explore comments and address any final concerns prior to commencement of the final design package. Feedback shall be sought from the workshop attendees. CONSULTANT anticipates incorporating these workshops with the Weekly Coordination Meetings (Task 1.1.2) to expedite the project schedule and maximize resources.

Task 1.1.4 – CDPH Coordination Meeting (**Total = 1**): CONSULTANT shall coordinate and attend one (1) meeting with CDPH to discuss alternative options to address the air gap requirements associated with the in-plant brine box located adjacent to the RO skid and scavenger tank inlet pipes.

Task 1.1.5 – Quality Assurance and Quality Control and Safety in Design: Quality Assurance/Quality Control ("QA/QC") Manager, Peter Eccleston, shall attend an internal project kick off meeting and shall work with the design team on ensuring the project goals are met utilizing CONSULTANT's Project Quality Manual (PQM) which operates within the Practice Quality Management System, ISO 9001:2008 and an Environmental Management System, ISO 14001:2004 which are certified by Lloyds Register Quality Assurance. Mr. Donovan shall incorporate CONSULTANT's Safety in Design program throughout all activities in the project including, but not limited to, a Health Safety and Environment (HSE) Job Plan, Job Safety and Environment Analysis (JSEA), and Safety in Design Reviews.

Task 1.1.6 – LA County DPW Industrial Waste Permit Coordination Meeting (**Total = 1**): CONSULTANT shall coordinate and attend one (1) meeting with LA County DPW to procure a new industrial waste discharge permit and/or modify the existing CITY permit.

#### **Task 1.2 – Data Collection and Site Assessment**

Task 1.2.1 – Review As-Built Drawings: CONSULTANT shall review all available drawings provided by CITY to be incorporated into the final design of this project.

Task 1.2.2 – Plant Assessment: CONSULTANT shall conduct a single site assessment to survey and document damaged pipes, pipe supports, electrical conduits, concrete floors, walls, existing equipment, and devices. Damages identified shall be presented to CITY in the PDR that shall include mitigation measures for implementation into the final design and associated costs.

Task 1.2.3 – Sulfuric Acid Injectors Inspection: CONSULTANT shall work with plant operators to inspect the sulfuric acid injectors and look for any buildup of material on the injection quill or in the check valve. Additionally, the use of suitable materials of construction for the injection assembly shall be confirmed. The results of this inspection shall be presented to CITY in the PDR.

Task 1.2.4 – Clear Well Assessment: CONSULTANT shall conduct a dry inspection of the concrete rectangular clearwell and vertical turbine product water pumps. *CONSULTANT assumes CITY shall dewater the tank and provide confined space certification.* CONSULTANT shall inspect the concrete surfaces and the integrity of all joints and map any cracks, if present, and note areas of deterioration. CONSULTANT shall also visually assess the vertical turbine pumps for potential corrosion. The results of this assessment shall be presented in the PDR along with CONSULTANT's associated recommendations and costs for CITY review and approval on how to proceed with the final design.

Task 1.2.5 – Utility Trench Assessment: CONSULTANT shall assess and evaluate the existing concrete utility trenches for drainage problems and corrosion. The results of the evaluation shall be presented to CITY in the PDR that shall include mitigation measures for implementation into the final design and associated costs.

Task 1.2.6 – Industrial Waste Line Condition Assessment: CONSULTANT shall contract a licensed contractor to gain access to and CCTV camera the existing 6-inch and 8-inch industrial waste lines. CONSULTANT's understanding of these lines is based entirely upon the existing plumbing plan provided by CITY. The specific 6-inch segment to be video recorded includes the north-south line inside the office side of the building between the existing 4" clean out just inside the RO Treatment Plant to the tee along the east-west 8-inch line generally located in the hallway outside the sewer maintenance crew room. The 8-inch east-west line spans between the 6-inch north-south line described above and the existing industrial waste discharge box located in the planter area outside the Public Works building fronting Foothill. CONSULTANT shall review the associated CCTV videos to locate the approximate point(s) of collapse of the 6-inch line and assess the overall condition of both lines. Recommendations shall be provided in the preliminary design and subsequent final design documents for construction. Work under this task shall restore the pipe segment removed for insertion of the CCTV camera, backfilling the associated hole, and restoration of the localized concrete slab foundation removed for initial access.

#### **Task 1.2.7 – Industrial Waste Line Dye Testing**

CONSULTANT shall facilitate dye testing of Plant and Public Works building industrial waste drain lines to confirm points of discharge to the sanitary sewer trunk lines in Foothill Road. *CONSULTANT assumes*

*assistance by CITY staff shall be provided for access, but CONSULTANT staff shall conduct the exploratory testing, collect data, and record findings to understand the path of drain lines.*

### **Task 1.3 – Mapping**

Task 1.3.1 – Base Mapping: CITY Operations staff indicated that detailed mapping of the entire Plant would not be necessary for this project and should be limited to the improvements associated with the scope of work of this project effort. Therefore, CONSULTANT anticipates utilizing the existing Plant drawings provided by CITY and supplemented with limited field surveying (see Task 1.3.2) to prepare a base map for the corresponding work for this project. CONSULTANT shall utilize a current version of AutoCAD for the production of the base maps for incorporation to project graphics and design plans.

Task 1.3.2 – Surveying: CONSULTANT shall provide limited field surveying to capture some critical elevations in the Plant for proper drainage. Specifically, CONSULTANT shall utilize local control and a baseline elevation from existing Plant drawings provided by CITY to capture elevations of the:

- Industrial waste drainage system
- Brine disposal system, and along the
- Floor of the utility trench

This shall provide CONSULTANT's design team the information necessary to:

- Design a new industrial waste drainage system
- Build an engineering case to utilize the difference in elevation between the interior brine box and exterior brine diversion structure instead of constructing a new air gap
- Correct the existing drainage issues in the utility trenches

### **Task 1.4 – Industrial Waste Line**

Task 1.4.1 – Industrial Waste Line Design: CONSULTANT shall evaluate corrective strategies for the existing disintegrated 6-inch and 8-inch cast iron industrial waste lines plus the incorporation of additional floor drains in the Plant. Alternatives shall be presented to CITY in the PDR along with CONSULTANT's associated recommendation(s) for CITY review and approval. Upon finalization of the recommendations of the PDR, CONSULTANT shall prepare a final alignment design containing plan and profiles, a new industrial waste discharge box (if required), and corresponding details necessary for construction including associated construction costs. Details pertaining to the design submittals are included in Task 1.16.

Task 1.4.2 – Industrial Waste Discharge Permitting Assistance: Based on a conversation with the Environmental Programs Division (EPD) of Los Angeles County Department of Public Works, CONSULTANT makes the following assumptions and anticipates executing the subsequent tasks to modify the existing and/or obtain a new industrial waste discharge permit:

- CONSULTANT shall need to file a new permit application for the new proposed connection to the sewer (if required).
- Along with the new permit application, CONSULTANT shall need to submit four (4) copies of the plans showing the design of the new connection, and the sample/monitoring box with pH instrumentation (if required).
- Prepare a separate permit application to revise the existing industrial waste permit (if required).
- *CONSULTANT assumes CITY shall provide the necessary information to completely fill out the permit applications.*

- *CONSULTANT assumes the application fees for CITY shall be waived as Environmental Programs Division ("EPD") staff indicated past fees have been waived. If otherwise, CONSULTANT assumes CITY shall pay all applicable fees outside the budget established in this contract.*
- CONSULTANT assumes the initial permit application submittals shall be delivered to the County via mail, but the final permit application submittals shall require processing through the County's permit counter.
- The permit procurement process shall require a meeting at the Los Angeles County Department of Public Works. CONSULTANT has allotted for one (1) meeting at their Alhambra office.

### **Task 1.5 – Clear Well**

Task 1.5.1 – Product Water Pumps: Based upon the assessment outlined in Task 1.2, CONSULTANT shall provide recommendations regarding the exterior condition of the existing vertical turbine pump suction bells, pump bowls, and column pipe. The recommendations and associated construction costs shall be documented in the PDR for CITY approval and included in the final contract documents for construction.

Task 1.5.2 – Water Sampling System: CONSULTANT shall design a sampling pump and associated piping, electrical, and control systems to allow CITY staff to monitor free chlorine residual independent of operating the product water pumps. CONSULTANT shall provide a sizing and location of the penetration and water tightness for the installation.

Task 1.5.3 – Coating System: CONSULTANT shall consult with coating manufacturers, recommend, and specify an appropriate coating system for the clear well. The selected coating system shall take into consideration the chemical composition of the water inside the clear well and NSF-61 certification requirements. These recommendations and associated construction costs shall be included in the PDR and included in the final contract documents.

Task 1.5.4 – Clear Well Overflow Sensor: The clear well currently overflows through an outlet outside the westerly side of the plant to the storm drain. Its current configuration provides CITY staff the tools to only estimate reported volume of water discharged to the storm drain for Water Quality Control Board requirements. CONSULTANT shall specify a level sensor or flow switch at the overflow to provide CITY staff the information necessary to determine actual volumes being discharged for a more accurate account of Plant operation. Recommendations of the applicable devices and associated instrumentation and control equipment and associated costs shall be documented in the PDR for CITY review and approval. Final PDR recommendations shall be incorporated into the final design plans and contract documents for ultimate construction.

### **Task 1.6 – Utility Trenches**

The existing utility trenches contain areas that collect standing water and show signs of significant chemical corrosion. To mitigate this, CONSULTANT shall specify improvements for both proper drainage and the application of an appropriate corrosion inhibiting coating system. These recommendations (in addition to associated construction costs) shall be included in the PDR and included in the final contract documents.

### **Task 1.7 – In-Plant Valves and Operators**

CONSULTANT assumes six (6) manually actuated isolation valves which operate the RO CIP system shall be fitted with new motor operators to provide remote operation. These valves are subject to CITY

confirmation, but include the following: V920, V921, V922, V923, V924, and V925 per the RO Plant drawings provided by CITY. CONSULTANT shall also work with CITY staff to identify which of these valves may require complete replacement based upon visual inspection of the exterior. The valves shall be mapped and presented in the PDR (together with associated construction costs) for CITY approval. The final contract documents shall include the valves, associated power supply, and control system design elements for ultimate construction.

#### **Task 1.8 – Air Gaps and Odor Issues**

**Task 1.8.1 – Brine Box:** The current brine discharge for the RO treatment system contains a two-fold problem. The first problem relates to the emission of hydrogen sulfide gas into the plant building creating a potential safety risk to the building occupants. According to Water Operations staff this has been recently lessened through the increase of chlorine injected in the bottom of the brine box to oxidize the hydrogen sulfide and the application of rubber mats on top of the brine box to prevent any remaining gases from escaping. The second problem relates to a non-existent DPH-required air gap on the discharge line into the brine box. A traditional air gap includes a vertical distance (typically a single pipe diameter) from the top of the drain overflow to the point of discharge that effectively creates a physical separation between the two, preventing any overflowing fluid in the brine box being siphoned back into the discharge piping and in this case contaminating the membranes. Unfortunately, by adding such a traditional air gap, gases would again be released resulting in unwanted odors in the building. CONSULTANT proposes a multi-layered approach to the brine box issues including both odor control and the air gap. CONSULTANT anticipates that this approach, including the evaluation of an insertable vortex drop structure, to mitigate the violent splashing of flow hitting the bottom of the brine discharge box for odor control. Another odor control measure would be the consideration of an exhaust hood installed on top of the brine box that would pull a negative draft inside the brine box and send odors to the existing scrubber. The discharge piping could also be replumbed with large diameter piping to effectively slow down the flow discharged into the brine box. The incorporation of a mechanical cross-connection prevention device may be considered as an alternative to the traditional air gap. Finally, the discharge pipes could be reconfigured to discharge from above the overflow lip of the existing brine box providing a true air gap.

**Task 1.8.2 – CIP Scavenger Tank Inlet Pipes:** CONSULTANT shall provide a design to reroute the inlet pipes to the scavenger tank to address the June 2013 observation provided by CDPH. Currently the tank inlet and overflow pipe connections are at the same elevation thus violating the concept of an air gap. An acceptable CDPH alternative includes reconfiguring the inlet piping to the top of the CIP scavenger tank. This effectively locates the air gap inside the tank which is an acceptable alternative through CDPH.

#### **Task 1.9 – Bulk Chemical Tank Containment Area Improvements**

**Task 1.9.1 – Drain Line Shields:** Design a protective shield for the existing drain line and isolation valve for each of the three bulk chemical tanks. The protective shields shall be kick-resistant and fabricated with corrosion resistant materials such as stainless steel and maintain access and functionality of the isolation valves for each of the individual chemical tanks.

**Task 1.9.2 – Coating Systems:** CONSULTANT shall consult with coating manufacturers, recommend, and specify appropriate coating systems for each of the bulk chemical tank areas. The selected coatings shall take into consideration the associated chemical contents of each individual tanks. These recommendations and associated construction costs shall be included in the PDR and included in the final contract documents.

### **Task 1.10 – Chemical Spill Panic Alarm System**

CONSULTANT shall design a panic/alarm button at the entry to each chemical containment area that shall: a) activate an audible alarm, b) send an alarm to SCADA that would send out an alert, and c) send an alarm to the fire department notifying them of the situation indicating what chemical is involved in incident. CONSULTANT shall also specify motor operated valves on the flange of the outlet pipes of each bulk storage tanks that shall be interconnected with both the SCADA system and panic/alarm system that shall remotely isolate the contents of each tank. The PDR shall also include options for automatically detecting a leak and communicating an alarm prior to detection by personnel.

*CONSULTANT assumes the above work shall be supplied and installed by the selected Contractor, but all software programming shall be completed by MacroAutomatics (CITY's system integrator).*

### **Task 1.11 – Plant Floor Improvements**

**Task 1.11.1 – Floor Drains:** New floor drains and clean outs in the Plant and Public Works building shall be added to mitigate ponding water in front of the scrubbers, air strippers, and flush tank. CONSULTANT anticipates cutting in a floor drain directly to the industrial waste line adjacent to the scrubber. However, more remote areas away from the current industrial waste line alignment may drain directly to the existing utility trenches to mitigate longer runs of new pipe and cutting of the existing plant concrete floor slab. These shall be included in the rehabilitation/replacement of the industrial waste line as further described in Task 1.4.

**Task 1.11.2 – Floor Coating System:** CONSULTANT shall consult with coating manufacturers, recommend, and specify appropriate coating systems for each of the Plant floor. The selected coating shall take into consideration the potential chemical contact from the various Plant processes. These together with associated construction costs shall be documented in the PDR for CITY consideration and final incorporation into the contract documents for ultimate construction.

### **Task 1.12 – Damage Repairs**

Based upon the assessments identified under Task 1.2, CONSULTANT shall prepare a list of recommended improvements and associated mitigating measures of damaged equipment, facilities, and materials within the Plant. These shall be documented (together with associated construction costs) in the PDR for CITY consideration and final incorporation into the contract documents for ultimate construction.

### **Task 1.13 – Plant Control System Improvements**

CONSULTANT shall provide construction documents for the following:

- Industrial PC and monitor to replace existing PanelView on RO control panel
- Ethernet CAT-5e cable from the RO control panel to the master RTU panel
- Additional I/O modules (or PLC) and wiring in existing RO panel to control the proposed electrical CIP system valve actuators
- Level sensor and/or flow switch to indicate the Clear Well is overflowing
- Allen-Bradley Control Logix CPU
- Connect Flush Tank and Scavenger Tank analog levels to DCS analog inputs

CONSULTANT assumes the above work shall be supplied and installed by the selected Contractor, but all software programming shall be completed by MacroAutomatics (CITY's system integrator).

#### **Task 1.14 – Pre-Filter Expansion**

CONSULTANT learned at the Plant tour that a percentage of raw water bypasses the existing pre-filters as blend-water in the clear well. CITY staff indicated on an annual basis that sand is removed from the clear well and air strippers as a result of utilizing the non-filtered bypass water. Therefore, CITY would like to explore the possibility of passing 100% of raw water through the pre-filters going forward. This shall require CONSULTANT to evaluate the capacity of the two existing pre-filter units and determine if suitable for the additional loading. If not, CONSULTANT can recommend the expansion of the existing configuration comprised of either new filter units or the addition of a third identical filter unit including the associated piping, instrumentation, and control. The recommendations (and associated construction costs) shall be documented in the PDR for CITY review and approval. Final PDR recommendations shall be incorporated into the final design plans and contract documents for ultimate construction.

#### **Task 1.15 – Preliminary Design Report**

Task 1.15.1 – Draft PDR: CONSULTANT shall prepare a Draft PDR that shall include design concepts, alternatives, construction materials comparisons, anticipated budgetary level construction costs, construction schedule, and the associated recommendations. CONSULTANT shall submit four (4) hardcopies and a compact disc containing the digital files in both pdf and original formats of the Draft PDR document for CITY review.

Following CITY's review of the Draft PDR, CONSULTANT shall conduct a Draft PDR review workshop with CITY staff to step through the Draft PDR document, CONSULTANT's findings, potential construction costs and CITY comments developed during CITY's review period.

Task 1.15.2 – Final PDR: CONSULTANT shall compile CITY comments from CONSULTANT's review of the Draft PDR and discussions during the Draft PDR Workshop into a Final PDR document. CONSULTANT shall submit two (2) hardcopies of the Final PDR document and a compact disc containing the digital files in both pdf and original formats.

#### **Task 1.16 – Final Design Plans, Specifications, and Engineering Cost Opinion**

Task 1.16.1 – Draft Final Design Submittal: CONSULTANT shall prepare a complete package of contract documents for the bidding and construction of the rehabilitation work associated with this project. A total of 31 Design Plan sheets shall be required. The CITY's standard boilerplate specifications shall be the base of contract specifications, and shall be supplemented with CONSULTANT technical specifications. CONSULTANT's draft final design submittal shall include four (4) sets of updated plans and copies of the contract documents, specifications, and cost opinion. Digital copies of the submittal shall be provided per CITY's Digital Submittal Requirements for all Public Works CIPs (per Exhibit A in the RFP). Following CITY's review, all appropriate comments shall be incorporated into the Final Design Submittal.

Task 1.16.2 – Final Design Submittal: CONSULTANT's final submittal to CITY shall include one (1) set of Mylars and an original set of contract documents and specifications signed by California licensed Civil and Electrical Engineers. This submittal shall also include the final cost opinion and any applicable design calculations. Digital copies of the plans and specifications on compact disc shall be provided per CITY's Digital Submittal Requirements for all Public Works CIPs (per Exhibit A in the RFP).

### **Task 1.17 – Bidding**

Task 1.17.1 – Technical Support: CONSULTANT shall provide technical support to CITY in answering bidder's questions and clarifications during a single bid period. CONSULTANT shall also attend a single pre-bid meeting at the plant and handle changes and addendums to the bid documents.

Task 1.17.2 – Bidding/Award Documents: CONSULTANT shall assist CITY with the preparation of bidding/awarding documents for a single bid period including the evaluation of contractor bids and conducting provided reference checks.

### **(a) PHASE 2 – CONSTRUCTION**

#### **Task 2.1 – Engineering Services During Construction**

Task 2.1.1 – Shop Drawing Review (**Total = 24**): CONSULTANT shall provide engineering support during construction by responding to shop drawings submitted for construction. CONSULTANT anticipates up to 24 shop drawing submittal packages shall be necessary to complete this project. Additional shop drawing submittal packages can be provided at an additional time and materials basis.

Task 2.1.2 – Request for Information/Request for Clarification ("RFI/RFC") (**Total = 8**): CONSULTANT shall provide engineering support during construction by responding to RFIs/RFCs and shall prepare the associated plan revisions necessary for construction. CONSULTANT anticipates up to eight (8) RFIs/RFCs shall be necessary to complete this project. Additional RFIs/RFCs can be provided at an additional time and materials basis.

Task 2.1.3 – Record Plan Support: Upon the completion of construction, CONSULTANT assumes the contractor and Construction Manager Butier shall record deviations to the contract documents in one master document. This master document of changes shall be turned over to CONSULTANT's CAD technicians who shall create final drawings which shall be stamped "As-Builts." CONSULTANT shall deliver to CITY a final set of stamped and signed "As-Built" Mylar plans as well as a compact disc with the associated AutoCAD drawing files in their native DWG format.

#### **Task 2.2 – Full Time Inspection and Construction Management**

The CONSULTANT/Butier team shall provide one full full-time general Field Inspector and one part-time Resident Engineer for the 6-month construction period stipulated in the RFP. The Field Inspector shall be present 40 hours per week (960 total hours) based on a 26-week schedule. The Resident Engineer shall be present 8 hours per week (192 total hours) to review schedules, change orders, perform estimates, and be the primary point of contact for CITY Water operations staff for contact administration issues.

The final Full Time Inspection and Construction Management scope and fee shall be determined based upon the effort associated with the Draft Final Design Submittal. At that time, the CONSULTANT/Butier Team shall assess the required staffing effort and provide this information to CITY for approval.

##### **Task 2.2.1 – Pre-Construction Phase**

- Coordinate Construction Administration Procedure — The CONSULTANT/Butier Team shall implement a Document Management/Tracking System scaled to meet project needs. The system shall include various forms of computerized data, reports, documents control, and software programs for contract administration purposes. Butier utilizes Box.com to track submittals and correspondence between key parties. The system tracks the status of submittals, meeting minute items, RFIs, change

orders, and potential change orders. Graphical and text reports can be generated to display the progress of certain groups of documents. Items can be linked to Primavera Project Planner (P6) scheduled activities in order to enhance the project-tracking effectiveness. CONSULTANT's IT infrastructure allows information to be disseminated via the Web and is fully cloud based. This allows collaborative project solutions and provides a secure redundant environment for project information.

#### **Task 2.2.2 – Construction Phase**

- **Document the Existing Site Conditions** — The Field Inspector(s) shall document the existing conditions of the proposed project staging area(s) and impacted pipeline alignment with photographs, video tape, and written observation logs. Documentation shall be provided to CIYT immediately before, during, and following the completion of construction. The Resident Engineer and Field Inspector(s) shall maintain the project files, records, correspondence, and (digital) photo library of progress.
- **Daily Inspection Services** — Butier shall provide daily inspection services at the project site to verify that the Contractor's work and submitted material and product data is performed and procured in compliance with the Contract documents, industry standards, and applicable codes, environmental, and local regulations.
- **Special Inspection Services** — Special inspection services including: coatings, electrical, materials, and geotechnical shall be determined upon the submittal of the Draft Final Design Submittal.
- **Submittal and Shop Drawing Management** — The Resident Engineer shall be responsible for managing, logging, and tracking the Contractor's submittals and shop drawings to and from the Engineer of Record. The Resident Engineer shall also verify compliance with the construction specifications and design standards to expedite revisions and corrections to the submittal or shop drawings.
- **Monitor the Contractor's CPM Schedule and Updates** — The Resident Engineer shall review and monitor the Contractor's CPM schedule on a weekly basis during the Weekly Construction Progress Meeting to coordinate work activities.
- **Weekly Construction Progress Meetings** — The Resident Engineer and/or Field Inspector(s) shall attend and participate in weekly construction progress meetings with representatives of CITY staff, jurisdictional agencies, subcontractors, design engineer (if required) and other key individuals to address all project matters. Each meeting shall cover site safety, progress, job problems, and any actions requiring clarification of design intent, ambiguities in contract documents, and other key issues. Action monitoring shall be implemented to ensure compliance and timely response by all parties.
- **Daily Inspection Reports** — The Field Inspector(s) shall prepare and submit to CITY: daily inspection reports, documenting construction activities including the date, day of week, and weather conditions; hours of work; personnel on site; time periods of equipment being used; idle or inoperable equipment; details of each activity; difficulties encountered; controversial matters/disputes; deficiencies and violations; instructions issued to the construction contractor; safety concerns; description of accidents; major material and equipment deliveries to the site; names of visitors to the site; and delays and extra work. Inspection reports shall be submitted to CITY on a weekly basis.

- **Change Order and Claim Management** — The Resident Engineer shall participate in the change order and construction documents review process and advise CITY of equitable cost and time adjustments for proposed or authorized changes including credits, if any, that are due, and assist in management of all contractor claims in accordance with the contract documents. The Resident Engineer shall coordinate with CITY staff to resolve conflicts in the plans and specifications, contractor suggested design changes, and design changes necessitated by unforeseen field conditions.
- **Digital Photographic Library** — The Field Inspector(s) shall provide and log construction digital photographs on a regular basis. A digital photographic library of significant construction activities shall be maintained. The photographs shall be labeled with the date, location, and narrative information. Additional digital photographs shall be taken to document differing site conditions, change order and claim items, and any special or unique conditions as they arise.
- **Contractor's Safety Program** — The Resident Engineer shall monitor the Contractor's safety program required for compliance with Cal/OSHA. The Contractor shall submit a copy of its current health and safety plan modified to reflect site-specific health and safety conditions related to CITY Water Operations staff. All issues with respect to traffic, haul routes, work areas, safety clothing, hazardous waste, etc. shall be discussed. All CAL/OSHA safety regulations are to be strictly enforced by the Contractor's Safety Engineer.
- **Record Drawings** — The Resident Engineer shall monitor the record drawings for the project. Record drawings shall be prepared by the Contractor to ensure that timely recording of drawings are being accomplished. CONSULTANT shall have ensured that construction contract documents shall provide CITY with the ability to withhold a percentage of the monthly pay request to ensure timely completion of record drawings.
- **Prepare and Maintain Detailed Punch List Items** — The Field Inspector(s) shall prepare and maintain detailed project punch lists and shall oversee and coordinate construction testing and start-up for final recommendation for final acceptance. Upon correction of deficiencies by the Contractor, the Field Inspector(s) shall schedule, coordinate, and conduct a final walk-through prior to the acceptance of work with CITY and provide certification of Contractor compliance on work items specifically requested by the Resident Engineer.

**Task 2.2.3 – Start-Up / Testing Phase**

- **Prepare Detailed Punch Lists & Submit Final Payment Requests** — The CONSULTANT/Butier team shall prepare detailed project punch lists at the close out of the project and shall oversee and coordinate construction testing and start-up for final recommendation for final acceptance. Upon correction of deficiencies by the Contractor, the Field Inspector(s) shall schedule, coordinate, and conduct a final walk-through prior to the acceptance of work with CITY Operations staff and provide certification of Contractor compliance on work items specifically requested by the Resident. The Field Inspector(s) shall prepare recommendations and documents for CITY approval of Certificates of Substantial Completion and Notices of Completion, and verify that work, testing, cleanup, and demobilization are complete.
- **Coordinate Construction Testing, Technical Training & Start-Up Procedures** — The Resident Engineer shall coordinate with CITY and the Contractor for construction testing, technical training, and start-up procedures. The CITY Operations staff shall coordinate performance testing (if necessary) with the manufacturer's representative, the Resident Engineer, and the Contractor to

ensure all equipment and processes meet the Contract requirements and all project warranties are maintained.

- **Assist in Project Closeout, Warranties, Guarantees and O & M Manuals —** The Resident Engineer shall assist in project closeout and assembly, warranties and guarantees and operations and maintenance manuals to ensure they are turned over to CITY for their files and project library. Once CITY accepts any part of the facility for purposes of beneficial use, it shall be formalized by documentation that describes the construction and date accepted and informs CITY that the warranty period has started as of that date.
- **Verify Contractor's Project Record Drawings —** The Resident Engineer shall review the Contractor's project record drawings for accuracy and completeness.
- **Turn Over All Documents and Files —** CONSULTANT/Butler shall assist CITY to provide documents (hard copy and electronic format) in a format that is acceptable.

(b) Design Plan Sheet Count Table

The following table shows a list of sheets CONSULTANT anticipates shall be required to complete this project.

| Sheet No. | Drawing No. | Plan Description                                    |
|-----------|-------------|---|
| 1         | G-1         | Title Sheet, Project Vicinity Map, and Sheet Index  |
| 2         | G-2         | Notes, Legend, and Abbreviations                    |
| 3         | C-1         | Civil Site Plan                                     |
| 4         | C-2         | Industrial Waste Line Plan & Profiles               |
| 5         | C-3         | Civil Details                                       |
| 6         | S-1         | Structural Symbols and Abbreviations                |
| 7         | S-2         | Structural Details 1                                |
| 8         | S-3         | Structural Details 2                                |
| 9         | M-1         | Mechanical Symbols and Abbreviations                |
| 10        | M-2         | Mechanical Site Plan - RO Plant                     |
| 11        | M-3         | Mechanical Site Plan - Bulk Chemical Storage Area   |
| 12        | M-4         | Mechanical Sections - Utility Trenches              |
| 13        | M-5         | Mechanical Sections - Brine Box                     |
| 14        | M-6         | Mechanical Sections - Scavenger Tank                |
| 15        | M-7         | Utility Trench - Plan                               |
| 16        | M-8         | Utility Trench - Sections                           |
| 17        | M-9         | Clear Well Overflow Sensor - Plan & Sections        |
| 18        | M-10        | Clear Well Sampling Pump - Plan & Sections          |
| 19        | M-11        | HVAC Scrubber Duct Work - Plan & Sections           |
| 20        | M-12        | Mechanical Details 1                                |
| 21        | M-13        | Mechanical Details 2                                |
| 22        | E-1         | Electrical Symbols and Abbreviations                |
| 23        | E-2         | Electrical Site Plan - RO Plant                     |
| 24        | E-3         | Electrical Site Plan - Bulk Chemical Storage Area   |
| 25        | E-4         | Electrical Single Line Diagram                      |
| 26        | E-5         | Revised Panel (PNL-100) Schedule                    |
| 27        | E-6         | Conduit Schedule                                    |
| 28        | E-7         | Electrical Details                                  |
| 29        | I-1         | Instrumentation & Control Symbols and Abbreviations |
| 30        | I-2         | P&ID - RO Plant                                     |
| 31        | I-3         | P&ID - Bulk Chemical Storage Area                   |

**EXHIBIT B**  
**PROJECT BUDGET AND SUMMARY**

**City of Beverly Hills**  
 Fee Proposal – Reverse Osmosis (R.O.) Water Treatment Plant Remediation Project  
 February 7, 2014 (Revised May 5, 2014)



| Task Description  | Hourly Rates      |          |                     |                      |                  |                |                   |                 |                   |              |                   | Total Hours  | Labor             | Subs             | ODC              | Total             |
|---|-------------------|----------|---------------------|----------------------|------------------|----------------|-------------------|-----------------|-------------------|--------------|-------------------|--------------|-------------------|------------------|------------------|-------------------|
|   | Project Principal | QA/QC    | Sr. Project Manager | Sr. Project Engineer | Project Engineer | Staff Engineer | Resident Engineer | Field Inspector | Special Inspector | CAD Designer | Project Assistant |              |                   |                  |                  |                   |
|   | \$235             | \$210    | \$195               | \$185                | \$175            | \$135          | \$173             | \$137           | \$160             | \$120        | \$75              |              |                   |                  |                  |                   |
| Task 1.1.1 – Kick-Off Meeting (Meeting #1)                      | 3                 | -        | 3                   | 5                    | -                | -              | -                 | -               | -                 | -            | 1                 | 12           | \$ 2,290          | \$ -             | \$ 72            | \$ 2,362          |
| Task 1.1.2 – Wkly Coord Meetings (10 mtgs & 10 calls)           | -                 | -        | 40                  | 80                   | -                | -              | -                 | -               | -                 | -            | 20                | 140          | \$ 24,100         | \$ -             | \$ 840           | \$ 24,940         |
| Task 1.1.3 – Technical Workshops (Task 1.1.2)                   | -                 | -        | -                   | -                    | -                | -              | -                 | -               | -                 | -            | -                 | -            | \$ -              | \$ -             | \$ -             | \$ -              |
| Task 1.1.4 – CDPH Coordination Meeting (1 meeting)              | -                 | -        | 4                   | 5                    | -                | -              | -                 | -               | -                 | -            | 1                 | 10           | \$ 1,780          | \$ -             | \$ 60            | \$ 1,840          |
| Task 1.1.5 – QA/QC & Safety in Design (see specific tasks)      | -                 | -        | -                   | -                    | -                | -              | -                 | -               | -                 | -            | -                 | -            | \$ -              | \$ -             | \$ -             | \$ -              |
| Task 1.1.6 – LACDPW Waste Permit Mtg (Task 1.4.2)               | -                 | -        | -                   | -                    | -                | -              | -                 | -               | -                 | -            | -                 | -            | \$ -              | \$ -             | \$ -             | \$ -              |
| <b>Task 1.1 – Project Management</b>                            | <b>3</b>          | <b>-</b> | <b>47</b>           | <b>90</b>            | <b>-</b>         | <b>-</b>       | <b>-</b>          | <b>-</b>        | <b>-</b>          | <b>-</b>     | <b>22</b>         | <b>162</b>   | <b>\$ 28,170</b>  | <b>\$ -</b>      | <b>\$ 972</b>    | <b>\$ 29,142</b>  |
| Task 1.2.1 – Review As-Built Drawings                           | -                 | -        | 2                   | 2                    | 8                | -              | -                 | -               | -                 | -            | -                 | 12           | \$ 2,160          | \$ -             | \$ 72            | \$ 2,232          |
| Task 1.2.2 – Plant Assessment                                   | -                 | -        | 6                   | 6                    | -                | -              | -                 | -               | -                 | -            | 2                 | 14           | \$ 2,370          | \$ -             | \$ 84            | \$ 2,454          |
| Task 1.2.3 – Sulfuric Acid Injectors Inspection (Task 1.2.2)    | -                 | -        | -                   | -                    | -                | -              | -                 | -               | -                 | -            | -                 | -            | \$ -              | \$ -             | \$ -             | \$ -              |
| Task 1.2.4 – Clear Well Assessment (Task 1.2.2)                 | -                 | -        | -                   | -                    | -                | -              | -                 | -               | -                 | -            | -                 | -            | \$ -              | \$ -             | \$ -             | \$ -              |
| Task 1.2.5 – Utility Trench Assessment (Task 1.2.2)             | -                 | -        | -                   | -                    | -                | -              | -                 | -               | -                 | -            | -                 | -            | \$ -              | \$ -             | \$ -             | \$ -              |
| Task 1.2.6 – Industrial Waste Line Condition Assessment         | -                 | -        | -                   | 8                    | 12               | -              | -                 | -               | -                 | -            | -                 | 20           | \$ 3,580          | \$ 4,140         | \$ 120           | \$ 7,840          |
| Task 1.2.7 – Industrial Waste Line Dye Testing                  | -                 | -        | -                   | 8                    | -                | -              | -                 | -               | -                 | -            | -                 | 8            | \$ 1,480          | \$ -             | \$ 48            | \$ 1,528          |
| <b>Task 1.2 – Data Collection and Site Assessment</b>           | <b>-</b>          | <b>-</b> | <b>8</b>            | <b>18</b>            | <b>26</b>        | <b>-</b>       | <b>-</b>          | <b>-</b>        | <b>-</b>          | <b>-</b>     | <b>2</b>          | <b>54</b>    | <b>\$ 9,590</b>   | <b>\$ 4,140</b>  | <b>\$ 324</b>    | <b>\$ 14,054</b>  |
| Task 1.3.1 – Mapping  | -                 | 1        | -                   | 4                    | -                | -              | -                 | -               | -                 | 8            | 2                 | 15           | \$ 2,080          | \$ -             | \$ 90            | \$ 2,150          |
| Task 1.3.2 – Surveying  | -                 | 1        | 1                   | 4                    | -                | -              | -                 | -               | -                 | -            | 1                 | 7            | \$ 1,220          | \$ 6,210         | \$ 42            | \$ 7,472          |
| <b>Task 1.3 – Mapping</b>                                       | <b>-</b>          | <b>1</b> | <b>1</b>            | <b>4</b>             | <b>-</b>         | <b>-</b>       | <b>-</b>          | <b>-</b>        | <b>-</b>          | <b>-</b>     | <b>1</b>          | <b>7</b>     | <b>\$ 1,220</b>   | <b>\$ 6,210</b>  | <b>\$ 42</b>     | <b>\$ 7,472</b>   |
| Task 1.4.1 – Industrial Waste Line Design                       | -                 | -        | -                   | 12                   | -                | 18             | -                 | -               | -                 | 24           | 2                 | 56           | \$ 7,680          | \$ -             | \$ 336           | \$ 8,016          |
| Task 1.4.2 – Industrial Waste Discharge Permitting              | -                 | -        | 5                   | 4                    | -                | 19             | -                 | -               | -                 | -            | 3                 | 31           | \$ 4,505          | \$ -             | \$ 186           | \$ 4,691          |
| <b>Task 1.4 – Industrial Waste Line</b>                         | <b>-</b>          | <b>-</b> | <b>5</b>            | <b>4</b>             | <b>-</b>         | <b>19</b>      | <b>-</b>          | <b>-</b>        | <b>-</b>          | <b>-</b>     | <b>3</b>          | <b>31</b>    | <b>\$ 4,505</b>   | <b>\$ -</b>      | <b>\$ 186</b>    | <b>\$ 4,691</b>   |
| Task 1.5.1 – Product Water Pumps                                | -                 | -        | 4                   | 2                    | -                | -              | -                 | -               | -                 | -            | -                 | 6            | \$ 1,150          | \$ -             | \$ 36            | \$ 1,186          |
| Task 1.5.2 – Water Sampling System                              | -                 | -        | -                   | 4                    | 12               | 8              | -                 | -               | -                 | 8            | 2                 | 34           | \$ 5,030          | \$ -             | \$ 204           | \$ 5,234          |
| Task 1.5.3 – Coating System                                     | -                 | -        | -                   | 1                    | 8                | 4              | -                 | -               | -                 | -            | 1                 | 14           | \$ 2,200          | \$ -             | \$ 84            | \$ 2,284          |
| Task 1.5.4 – Clear Well Overflow Sensor                         | -                 | -        | -                   | 2                    | 12               | 8              | -                 | -               | -                 | 8            | 1                 | 31           | \$ 4,585          | \$ -             | \$ 186           | \$ 4,771          |
| <b>Task 1.5 – Clear Well</b>                                    | <b>-</b>          | <b>-</b> | <b>4</b>            | <b>9</b>             | <b>32</b>        | <b>20</b>      | <b>-</b>          | <b>-</b>        | <b>-</b>          | <b>16</b>    | <b>4</b>          | <b>85</b>    | <b>\$ 12,965</b>  | <b>\$ -</b>      | <b>\$ 510</b>    | <b>\$ 13,475</b>  |
| Task 1.6 – Utility Trenches                                     | -                 | -        | -                   | 4                    | 8                | 6              | -                 | -               | -                 | 6            | -                 | 24           | \$ 3,670          | \$ -             | \$ 144           | \$ 3,814          |
| <b>Task 1.6 – Utility Trenches</b>                              | <b>-</b>          | <b>-</b> | <b>-</b>            | <b>4</b>             | <b>8</b>         | <b>6</b>       | <b>-</b>          | <b>-</b>        | <b>-</b>          | <b>6</b>     | <b>-</b>          | <b>24</b>    | <b>\$ 3,670</b>   | <b>\$ -</b>      | <b>\$ 144</b>    | <b>\$ 3,814</b>   |
| Task 1.7 – In-Plant Valves and Operators                        | -                 | -        | -                   | 4                    | 32               | -              | -                 | -               | -                 | 24           | 1                 | 61           | \$ 9,295          | \$ -             | \$ 366           | \$ 9,661          |
| <b>Task 1.7 – In-Plant Valves and Operators</b>                 | <b>-</b>          | <b>-</b> | <b>-</b>            | <b>4</b>             | <b>32</b>        | <b>-</b>       | <b>-</b>          | <b>-</b>        | <b>-</b>          | <b>24</b>    | <b>1</b>          | <b>61</b>    | <b>\$ 9,295</b>   | <b>\$ -</b>      | <b>\$ 366</b>    | <b>\$ 9,661</b>   |
| Task 1.8.1 – Brine Box  | -                 | -        | 24                  | 8                    | 12               | 14             | -                 | -               | -                 | 24           | 2                 | 84           | \$ 13,180         | \$ -             | \$ 504           | \$ 13,684         |
| Task 1.8.2 – CIP Scavenger Tank Inlet Pipes                     | -                 | -        | 3                   | 6                    | -                | 8              | -                 | -               | -                 | 8            | 1                 | 26           | \$ 3,810          | \$ -             | \$ 156           | \$ 3,966          |
| <b>Task 1.8 – Air Gaps</b>                                      | <b>-</b>          | <b>-</b> | <b>27</b>           | <b>14</b>            | <b>12</b>        | <b>22</b>      | <b>-</b>          | <b>-</b>        | <b>-</b>          | <b>32</b>    | <b>3</b>          | <b>110</b>   | <b>\$ 16,990</b>  | <b>\$ -</b>      | <b>\$ 660</b>    | <b>\$ 17,650</b>  |
| Task 1.9.1 – Drain Line Shields                                 | -                 | -        | -                   | 6                    | -                | 4              | -                 | -               | -                 | 6            | 1                 | 17           | \$ 2,445          | \$ -             | \$ 102           | \$ 2,547          |
| Task 1.9.2 – Coating Systems                                    | -                 | -        | -                   | 1                    | 8                | 4              | -                 | -               | -                 | -            | 1                 | 14           | \$ 2,200          | \$ -             | \$ 84            | \$ 2,284          |
| <b>Task 1.9 – Bulk Chemical Tank Area Improvements</b>          | <b>-</b>          | <b>-</b> | <b>7</b>            | <b>8</b>             | <b>8</b>         | <b>-</b>       | <b>-</b>          | <b>-</b>        | <b>-</b>          | <b>6</b>     | <b>2</b>          | <b>31</b>    | <b>\$ 4,645</b>   | <b>\$ -</b>      | <b>\$ 186</b>    | <b>\$ 4,831</b>   |
| Task 1.10 – Chemical Spill Panic Alarm System                   | -                 | -        | -                   | 2                    | 24               | 3              | -                 | -               | -                 | 12           | 2                 | 43           | \$ 6,565          | \$ -             | \$ 258           | \$ 6,823          |
| <b>Task 1.10 – Chemical Spill Panic Alarm System</b>            | <b>-</b>          | <b>-</b> | <b>-</b>            | <b>2</b>             | <b>24</b>        | <b>3</b>       | <b>-</b>          | <b>-</b>        | <b>-</b>          | <b>12</b>    | <b>2</b>          | <b>43</b>    | <b>\$ 6,565</b>   | <b>\$ -</b>      | <b>\$ 258</b>    | <b>\$ 6,823</b>   |
| Task 1.11.1 – Floor Drains                                      | -                 | -        | -                   | 4                    | 5                | 6              | -                 | -               | -                 | 6            | -                 | 21           | \$ 3,145          | \$ -             | \$ 126           | \$ 3,271          |
| Task 1.11.2 – Floor Coating System                              | -                 | -        | -                   | 1                    | 8                | 4              | -                 | -               | -                 | -            | 1                 | 14           | \$ 2,200          | \$ -             | \$ 84            | \$ 2,284          |
| <b>Task 1.11 – Plant Floor Improvements</b>                     | <b>-</b>          | <b>-</b> | <b>-</b>            | <b>5</b>             | <b>13</b>        | <b>10</b>      | <b>-</b>          | <b>-</b>        | <b>-</b>          | <b>6</b>     | <b>1</b>          | <b>35</b>    | <b>\$ 5,345</b>   | <b>\$ -</b>      | <b>\$ 210</b>    | <b>\$ 5,555</b>   |
| Task 1.12 – Damage Repairs                                      | -                 | -        | -                   | 3                    | 8                | 6              | -                 | -               | -                 | 6            | -                 | 23           | \$ 3,485          | \$ -             | \$ 138           | \$ 3,623          |
| <b>Task 1.12 – Damage Repairs</b>                               | <b>-</b>          | <b>-</b> | <b>-</b>            | <b>3</b>             | <b>8</b>         | <b>6</b>       | <b>-</b>          | <b>-</b>        | <b>-</b>          | <b>6</b>     | <b>-</b>          | <b>23</b>    | <b>\$ 3,485</b>   | <b>\$ -</b>      | <b>\$ 138</b>    | <b>\$ 3,623</b>   |
| Task 1.13 – Plant Control System Improvements                   | -                 | -        | -                   | 2                    | 20               | 3              | -                 | -               | -                 | 12           | 2                 | 39           | \$ 5,865          | \$ -             | \$ 234           | \$ 6,099          |
| <b>Task 1.13 – Plant Control System Improvements</b>            | <b>-</b>          | <b>-</b> | <b>-</b>            | <b>2</b>             | <b>20</b>        | <b>3</b>       | <b>-</b>          | <b>-</b>        | <b>-</b>          | <b>12</b>    | <b>2</b>          | <b>39</b>    | <b>\$ 5,865</b>   | <b>\$ -</b>      | <b>\$ 234</b>    | <b>\$ 6,099</b>   |
| Task 1.14 – Pre-Filter Expansion                                | -                 | -        | 8                   | 2                    | 24               | 10             | -                 | -               | -                 | 12           | 1                 | 57           | \$ 8,995          | \$ -             | \$ 342           | \$ 9,337          |
| <b>Task 1.14 – Pre-Filter Expansion</b>                         | <b>-</b>          | <b>-</b> | <b>8</b>            | <b>2</b>             | <b>24</b>        | <b>10</b>      | <b>-</b>          | <b>-</b>        | <b>-</b>          | <b>12</b>    | <b>1</b>          | <b>57</b>    | <b>\$ 8,995</b>   | <b>\$ -</b>      | <b>\$ 342</b>    | <b>\$ 9,337</b>   |
| Task 1.15.1 – Draft PDR   | 1                 | 2        | 4                   | 6                    | 4                | 13             | -                 | -               | -                 | 8            | 2                 | 40           | \$ 6,110          | \$ -             | \$ 240           | \$ 6,350          |
| Task 1.15.2 – Final PDR   | -                 | 1        | 2                   | 4                    | 6                | 2              | -                 | -               | -                 | 8            | 2                 | 25           | \$ 3,770          | \$ -             | \$ 150           | \$ 3,920          |
| <b>Task 1.15 – Preliminary Design Report</b>                    | <b>1</b>          | <b>3</b> | <b>6</b>            | <b>10</b>            | <b>10</b>        | <b>15</b>      | <b>-</b>          | <b>-</b>        | <b>-</b>          | <b>16</b>    | <b>4</b>          | <b>65</b>    | <b>\$ 9,880</b>   | <b>\$ -</b>      | <b>\$ 390</b>    | <b>\$ 10,270</b>  |
| Task 1.16.1 – Draft Final Design Submittal (31 sheets)          | 2                 | 2        | -                   | -                    | -                | 8              | -                 | -               | -                 | 31           | 4                 | 47           | \$ 5,990          | \$ -             | \$ 282           | \$ 6,272          |
| Task 1.16.2 – Final Design Submittal (31 sheets)                | -                 | 1        | -                   | -                    | -                | 6              | -                 | -               | -                 | 8            | 2                 | 17           | \$ 2,130          | \$ -             | \$ 102           | \$ 2,232          |
| <b>Task 1.16 – Final Design Plans, Specifications and Costs</b> | <b>2</b>          | <b>3</b> | <b>-</b>            | <b>-</b>             | <b>-</b>         | <b>14</b>      | <b>-</b>          | <b>-</b>        | <b>-</b>          | <b>39</b>    | <b>6</b>          | <b>64</b>    | <b>\$ 8,120</b>   | <b>\$ -</b>      | <b>\$ 384</b>    | <b>\$ 8,504</b>   |
| Task 1.17.1 – Technical Support                                 | -                 | -        | 2                   | 4                    | -                | 6              | -                 | -               | -                 | -            | 2                 | 14           | \$ 2,090          | \$ -             | \$ 84            | \$ 2,174          |
| Task 1.17.2 – Bidding/Award Documents                           | -                 | -        | 2                   | 3                    | -                | 8              | -                 | -               | -                 | -            | 2                 | 15           | \$ 2,175          | \$ -             | \$ 90            | \$ 2,265          |
| <b>Task 1.17 – Bidding</b>                                      | <b>-</b>          | <b>-</b> | <b>4</b>            | <b>7</b>             | <b>-</b>         | <b>14</b>      | <b>-</b>          | <b>-</b>        | <b>-</b>          | <b>-</b>     | <b>4</b>          | <b>29</b>    | <b>\$ 4,265</b>   | <b>\$ -</b>      | <b>\$ 174</b>    | <b>\$ 4,439</b>   |
| <b>Subtotal – PHASE 1 – DESIGN</b>                              | <b>6</b>          | <b>7</b> | <b>110</b>          | <b>185</b>           | <b>217</b>       | <b>150</b>     | <b>-</b>          | <b>-</b>        | <b>-</b>          | <b>187</b>   | <b>58</b>         | <b>920</b>   | <b>\$ 143,570</b> | <b>\$ 10,350</b> | <b>\$ 5,520</b>  | <b>\$ 159,440</b> |
| <b>PHASE 2 – CONSTRUCTION</b>                                   |                   |          |                     |                      |                  |                |                   |                 |                   |              |                   |              |                   |                  |                  |                   |
| Task 2.1.1 – Shop Drawing Review (24)                           | -                 | -        | -                   | -                    | 72               | -              | -                 | -               | -                 | -            | 24                | 96           | \$ 14,400         | \$ -             | \$ 576           | \$ 14,976         |
| Task 2.1.2 – RFI/RFC (8)  | -                 | -        | -                   | -                    | 24               | -              | -                 | -               | -                 | -            | 8                 | 32           | \$ 4,800          | \$ -             | \$ 192           | \$ 4,992          |
| Task 2.1.3 – Record Plan Support (31 sheets)                    | -                 | 2        | -                   | -                    | 2                | 8              | -                 | -               | -                 | 31           | 2                 | 45           | \$ 5,720          | \$ -             | \$ 270           | \$ 5,990          |
| <b>Task 2.1 – Engineering Services During Construction</b>      | <b>-</b>          | <b>2</b> | <b>-</b>            | <b>-</b>             | <b>98</b>        | <b>8</b>       | <b>-</b>          | <b>-</b>        | <b>-</b>          | <b>31</b>    | <b>34</b>         | <b>173</b>   | <b>\$ 24,920</b>  | <b>\$ -</b>      | <b>\$ 1,038</b>  | <b>\$ 25,958</b>  |
| Task 2.2 – Full Time Inspection and Construction Mgmt           | -                 | -        | -                   | -                    | -                | -              | 192               | 960             | -                 | -            | -                 | 1,152        | \$ 164,304        | \$ -             | \$ 6,912         | \$ 171,216        |
| <b>Task 2.2 – Full Time Inspection and Construction Mgmt</b>    | <b>-</b>          | <b>-</b> | <b>-</b>            | <b>-</b>             | <b>-</b>         | <b>-</b>       | <b>192</b>        | <b>960</b>      | <b>-</b>          | <b>-</b>     | <b>-</b>          | <b>1,152</b> | <b>\$ 164,304</b> | <b>\$ -</b>      | <b>\$ 6,912</b>  | <b>\$ 171,216</b> |
| <b>Subtotal – PHASE 2 – CONSTRUCTION</b>                        | <b>-</b>          | <b>2</b> | <b>-</b>            | <b>-</b>             | <b>98</b>        | <b>8</b>       | <b>192</b>        | <b>960</b>      | <b>-</b>          | <b>31</b>    | <b>34</b>         | <b>1,325</b> | <b>\$ 189,224</b> | <b>\$ -</b>      | <b>\$ 7,950</b>  | <b>\$ 197,174</b> |
| Contingency   | -                 | -        | -                   | -                    | -                | -              | -                 | -               | -                 | -            | -                 | -            | -                 | -                | -                | \$ 63,386         |
| <b>Total (Not-to-Exceed)</b>                                    | <b>6</b>          | <b>9</b> | <b>110</b>          | <b>185</b>           | <b>315</b>       | <b>158</b>     | <b>192</b>        | <b>960</b>      | <b>-</b>          | <b>218</b>   | <b>92</b>         | <b>2,245</b> | <b>\$ 332,794</b> | <b>\$ 10,350</b> | <b>\$ 13,470</b> | <b>\$ 420,000</b> |

**PROJECT BUDGET**

**City of Beverly Hills**

Fee Proposal – R.O. Water Treatment Plant Remediation Project  
February 7, 2014 (Revised May 5, 2014)



|  | <b>Task Description</b>   | <b>Total</b>      |
|--|---|-------------------|
| <b>PHASE 1 – DESIGN</b>  | <b>Task 1.1 – Project Management</b>                                | <b>\$ 29,142</b>  |
|  | Task 1.1.1 – Kick-Off Meeting (Meeting #1)                          | \$ 2,362          |
|  | Task 1.1.2 – Weekly Coordination Meetings (10 meetings & 10         | \$ 24,940         |
|  | Task 1.1.3 – Technical Workshops (hours allocated in Task 1.1.2)    | \$ -              |
|  | Task 1.1.4 – CDPH Coordination Meeting (1 meeting)                  | \$ 1,840          |
|  | Task 1.1.5 – QA/QC & Safety in Design (hours allocated within       | \$ -              |
|  | Task 1.1.6 – LA County DPW Industrial Waste Permit Mtg (hours       | \$ -              |
|  | <b>Task 1.2 – Data Collection and Site Assessment</b>               | <b>\$ 14,054</b>  |
|  | Task 1.2.1 – Review As-Built Drawings                               | \$ 2,232          |
|  | Task 1.2.2 – Plant Assessment                                       | \$ 2,454          |
|  | Task 1.2.3 – Sulfuric Acid Injectors Inspection (hours allocated in | \$ -              |
|  | Task 1.2.4 – Clear Well Assessment (hours allocated in Task         | \$ -              |
|  | Task 1.2.5 – Utility Trench Assessment (hours allocated in Task     | \$ -              |
|  | Task 1.2.6 – Industrial Waste Line Condition Assessment             | \$ 7,840          |
|  | Task 1.2.7 – Industrial Waste Line Dye Testing                      | \$ 1,528          |
|  | <b>Task 1.3 – Mapping</b>   | <b>\$ 7,472</b>   |
|  | Task 1.3.1 – Mapping  | \$ 2,150          |
|  | Task 1.3.2 – Surveying  | \$ 7,472          |
|  | <b>Task 1.4 – Industrial Waste Line</b>                             | <b>\$ 4,691</b>   |
|  | Task 1.4.1 – Industrial Waste Line Design                           | \$ 8,016          |
|  | Task 1.4.2 – Industrial Waste Discharge Permitting Assistance       | \$ 4,691          |
|  | <b>Task 1.5 – Clear Well</b>  | <b>\$ 13,475</b>  |
|  | Task 1.5.1 – Product Water Pumps                                    | \$ 1,186          |
|  | Task 1.5.2 – Water Sampling System                                  | \$ 5,234          |
|  | Task 1.5.3 – Coating System   | \$ 2,284          |
|  | Task 1.5.4 – Clear Well Overflow Sensor                             | \$ 4,771          |
|  | <b>Task 1.6 – Utility Trenches</b>                                  | <b>\$ 3,814</b>   |
|  | Task 1.6 – Utility Trenches   | \$ 3,814          |
|  | <b>Task 1.7 – In-Plant Valves and Operators</b>                     | <b>\$ 9,661</b>   |
|  | Task 1.7 – In-Plant Valves and Operators                            | \$ 9,661          |
|  | <b>Task 1.8 – Air Gaps and Odor Issues</b>                          | <b>\$ 17,650</b>  |
|  | Task 1.8.1 – Brine Box  | \$ 13,684         |
|  | Task 1.8.2 – CIP Scavenger Tank Inlet Pipes                         | \$ 3,966          |
|  | <b>Task 1.9 – Bulk Chemical Tank Containment Area</b>               | <b>\$ 4,831</b>   |
|  | Task 1.9.1 – Drain Line Shields                                     | \$ 2,547          |
|  | Task 1.9.2 – Coating Systems  | \$ 2,284          |
|  | <b>Task 1.10 – Chemical Spill Panic Alarm System</b>                | <b>\$ 6,823</b>   |
|  | Task 1.10 – Chemical Spill Panic Alarm System                       | \$ 6,823          |
|  | <b>Task 1.11 – Plant Floor Improvements</b>                         | <b>\$ 5,555</b>   |
|  | Task 1.11.1 – Floor Drains  | \$ 3,271          |
|  | Task 1.11.2 – Floor Coating System                                  | \$ 2,284          |
|  | <b>Task 1.12 – Damage Repairs</b>                                   | <b>\$ 3,623</b>   |
|  | Task 1.12 – Damage Repairs  | \$ 3,623          |
|  | <b>Task 1.13 – Plant Control System Improvements</b>                | <b>\$ 6,099</b>   |
|  | Task 1.13 – Plant Control System Improvements                       | \$ 6,099          |
| <b>Task 1.14 – Pre-Filter Expansion</b>                          | <b>\$ 9,337</b>   |                   |
| Task 1.14 – Pre-Filter Expansion                                 | \$ 9,337  |                   |
| <b>Task 1.15 – Preliminary Design Report</b>                     | <b>\$ 10,270</b>  |                   |
| Task 1.15.1 – Draft PDR  | \$ 6,350  |                   |
| Task 1.15.2 – Final PDR  | \$ 3,920  |                   |
| <b>Task 1.16 – Final Design Plans, Specifications, and Costs</b> | <b>\$ 8,504</b>   |                   |
| Task 1.16.1 – Draft Final Design Submittal (31 sheets)           | \$ 6,272  |                   |
| Task 1.16.2 – Final Design Submittal (31 sheets)                 | \$ 2,232  |                   |
| <b>Task 1.17 – Bidding</b>                                       | <b>\$ 4,439</b>   |                   |
| Task 1.17.1 – Technical Support                                  | \$ 2,174  |                   |
| Task 1.17.2 – Bidding/Award Documents                            | \$ 2,265  |                   |
| <b>Subtotal – PHASE 1 – DESIGN</b>                               | <b>\$ 159,440</b>   |                   |
| <b>PHASE 2 – CONSTRUCTION</b>                                    | <b>Task 2.1 – Engineering Services During Construction</b>          | <b>\$ 25,958</b>  |
|  | Task 2.1.1 – Shop Drawing Review (24)                               | \$ 14,976         |
|  | Task 2.1.2 – RFI/RFC (8)  | \$ 4,992          |
|  | Task 2.1.3 – Record Plan Support (31 sheets)                        | \$ 5,990          |
|  | <b>Task 2.2 – Full Time Inspection and Construction</b>             | <b>\$ 171,216</b> |
|  | Task 2.2 – Full Time Inspection and Construction Management         | \$ 171,216        |
|  | <b>Subtotal – PHASE 2 – CONSTRUCTION</b>                            | <b>\$ 197,174</b> |
| Contingency  | \$ 63,386   |                   |
| <b>Total (Not-to-Exceed)</b>                                     | <b>\$ 420,000</b>   |                   |

**PROJECT SUMMARY**



**EXHIBIT C**  
**CERTIFICATE OF INSURANCE**

This is to certify that the following endorsement is part of the policy(ies) described below:

NAMED INSURED \_\_\_\_\_

COMPANIES AFFORDING COVERAGE

- A.
- B.
- C.

ADDRESS \_\_\_\_\_

| COMPANY<br>(A. B. C.) | COVERAGE  | POLICY<br>NUMBER | EXPIRATION<br>DATE | B.I. | LIMITS<br>P.D. | AGGREGATE |
|-----------------------|---|------------------|--------------------|------|----------------|-----------|
|                       | <input type="checkbox"/> AUTOMOBILE LIABILITY<br><input type="checkbox"/> GENERAL LIABILITY<br><input type="checkbox"/> PRODUCTS/COMPLETED<br>OPERATIONS<br><input type="checkbox"/> BLANKET CONTRACTUAL<br><input type="checkbox"/> CONSULTANT'S PROTECTIVE<br><input type="checkbox"/> PERSONAL INJURY<br><input type="checkbox"/> EXCESS LIABILITY<br><input type="checkbox"/> WORKERS' COMPENSATION<br><input type="checkbox"/> |                  |                    |      |                |           |

It is hereby understood and agreed that the City of Beverly Hills, its City Council and each member thereof and every officer and employee of the City shall be named as joint and several assureds with respect to claims arising out of the following project or agreement:

It is further agreed that the following indemnity agreement between the City of Beverly Hills and the named insured is covered under the policy: CONSULTANT agrees to indemnify, hold harmless and defend City, its City Council and each member thereof and every officer and employee of CITY from any and all liability or financial loss resulting from any suits, claims, losses or actions brought against and from all costs and expenses of litigation brought against CITY, its City Council and each member thereof and any officer or employee of CITY which results directly or indirectly from the wrongful or negligent actions of CONSULTANT's officers, employees, agents or others employed by CONSULTANT while engaged by CONSULTANT in the (performance of this agreement) construction of this project.

It is further agreed that the inclusion of more than one assured shall not operate to increase the limit of the company's liability and that insurer waives any right of contribution with insurance which may be available to the City of Beverly Hills.

In the event of cancellation or material change in the above coverage, the company will give 30 days written notice of cancellation or material change to the certificate holder.

Except to certify that the policy(ies) described above have the above endorsement attached, this certificate or verification of insurance is not an insurance policy and does not amend, extend or alter the coverage afforded by the policies listed herein. Notwithstanding any requirement, term, or condition of any contract or other document with respect to which this certificate or verification of insurance may be issued or may pertain, the insurance afforded by the policies described herein is subject to all the terms, exclusions and conditions of such policies.

DATE: \_\_\_\_\_

BY: \_\_\_\_\_  
Authorized Insurance Representative

AGENCY: \_\_\_\_\_  
\_\_\_\_\_

TITLE: \_\_\_\_\_  
ADDRESS: \_\_\_\_\_  
\_\_\_\_\_

# **Attachment 2**

AMENDMENT NO. 1 TO A PROFESSIONAL SERVICES AGREEMENT BETWEEN THE CITY OF BEVERLY HILLS AND GHD, INC. FOR ENGINEERING DESIGN AND CONSTRUCTION SUPPORT SERVICES FOR THE FY 13/14 REHABILITATION/UPGRADING OF THE CITY OF BEVERLY HILLS' REVERSE OSMOSIS (R. O.) WATER TREATMENT PLANT (JOB NO. 10102)

NAME OF CONSULTANT: GHD, Inc.

RESPONSIBLE PRINCIPAL OF CONSULTANT: Mark Donovan, Project Manager

CONSULTANT'S ADDRESS: 175 Technology Drive Suite 200  
Irvine, California 92618

CITY'S ADDRESS: City of Beverly Hills  
345 N. Foothill Road  
Beverly Hills, CA 90210  
Attention: Vincent Chee, Civil Engineer

COMMENCEMENT DATE: September 30, 2015

TERMINATION DATE: Upon satisfactory completion of all work required under this Agreement as determined by City

CONSIDERATION: Original Agreement: Not to exceed \$420,000  
  
Amendment No. 1: Not to exceed \$273,897 as more specifically described in Exhibit B  
  
Original Agreement and Amendment No. 1: Total not to exceed \$693,897

AMENDMENT NO. 1 TO A PROFESSIONAL SERVICES AGREEMENT BETWEEN THE CITY OF BEVERLY HILLS AND GHD, INC. FOR ENGINEERING DESIGN AND CONSTRUCTION SUPPORT SERVICES FOR THE FY 13/14 REHABILITATION/UPGRADING OF THE CITY OF BEVERLY HILLS' REVERSE OSMOSIS (R. O.) WATER TREATMENT PLANT (JOB NO. 10102)

This Amendment No. 1 is to that certain Agreement dated June 17<sup>th</sup>, 2014 and identified as Contract No. 282-14 (the "Agreement"), between the City of Beverly Hills, a municipal corporation ("CITY"), and GHD, Inc., (hereinafter called "CONSULTANT") for engineering design and construction support services, copies of which are on file in the Office of the City Clerk.

RECITALS

A. CITY entered into a written agreement with CONSULTANT to perform engineering design and construction support services for the rehabilitation/upgrade of the CITY's Reverse Osmosis (R. O.) Water Treatment Plant.

B. CITY and CONSULTANT desire to amend the scope of work to include additional work and compensate CONSULTANT for such services.

NOW, THEREFORE, the parties agree as follows:

Section 1. The Consideration shall be amended as set forth on the cover page.

Section 2. The Termination date shall be amended as set forth on the cover page.

Section 3. Attachment 1 to Exhibit A, "Additional Scope of Services" of the Agreement is hereby added as attached hereto and incorporated herein.

Section 4. Attachment 1 to Exhibit B, "Schedule of Payment and Rates" is hereby added as attached hereto and incorporated herein.

Section 5. Except as specifically amended by this Amendment No. 1, the terms and conditions set forth in the Agreement shall remain in full force and effect.

EXECUTED the \_\_\_\_ day of \_\_\_\_\_ 2015, at Beverly Hills, California.

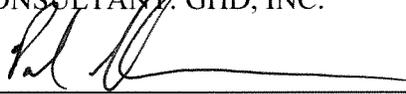
CITY OF BEVERLY HILLS  
A Municipal Corporation

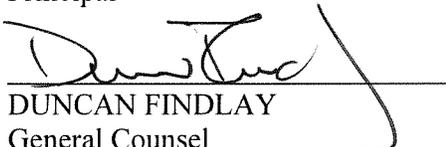
\_\_\_\_\_  
JULIAN A. GOLD, M.D.  
Mayor of the City of Beverly Hills, California

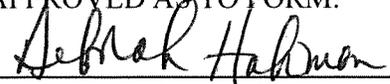
ATTEST:

\_\_\_\_\_  
(SEAL)  
BYRON POPE  
City Clerk

CONSULTANT: GHD, INC.

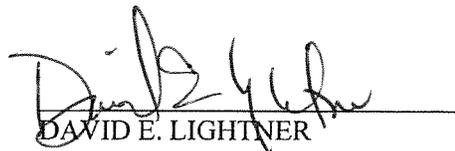
  
\_\_\_\_\_  
PAUL HERMANN  
Principal

  
\_\_\_\_\_  
DUNCAN FINDLAY  
General Counsel

APPROVED AS TO FORM:  
  
\_\_\_\_\_  
LAURENCE S. WIENER  
City Attorney

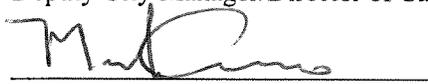
APPROVED AS TO CONTENT  
\_\_\_\_\_  
MAHDI ALUZRI  
City Manager

[Signatures continue]



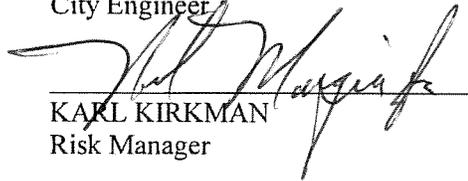
Handwritten signature of David E. Lightner in black ink, written over a horizontal line.

DAVID E. LIGHTNER  
Deputy City Manager/Director of Capital Assets



Handwritten signature of Mark Cuneo in black ink, written over a horizontal line.

MARK CUNEO  
City Engineer



Handwritten signature of Karl Kirkman in black ink, written over a horizontal line.

KARL KIRKMAN  
Risk Manager

**ATTACHMENT 1 TO  
EXHIBIT A  
ADDITIONAL SCOPE OF WORK**

CONSULTANT shall perform as-needed engineering and construction support services as described in Exhibit A of the original agreement between the CITY and CONSULTANT (dated June 17, 2014). CONSULTANT shall provide the following additional support services as follows:

**Task 2.1 - Engineering Services During Construction**

**Task 2.1.1 - Shop Drawing Review:** CONSULTANT shall provide engineering support during construction by responding to shop drawing submittal packages for construction. A list of anticipated submittal packages is attached.

**Task 2.1.2 - Request for Information/Request for Clarification (RFI/RFC):** CONSULTANT shall provide engineering support during construction by responding to RFIs/RFCs and shall prepare the associated plan revisions necessary for construction.

**Task 2.1.3 – Record Plan Support:** Upon the completion of construction, CONSULTANT assumes the contractor will record deviations to the contract documents in one master document. This master document of changes will be turned over to CONSULTANT’s CAD technicians who will create final drawings which will be stamped “As-Builts.” CONSULTANT shall deliver to CITY a final set of stamped and signed “As-Built” Mylar plans as well as a compact disc with the associated AutoCAD drawing files in their native DWG format

**Task 2.2 – Full Time Inspection and Construction Manager**

**Task 2.2.1 – Full Time Inspection and Construction Management:** The CONSULTANT /Butier team shall provide one full full-time general Field Inspector and one part-time Resident Engineer. This includes document management and tracking, documenting field conditions, and daily inspection services, in addition to monitoring the CPM schedule, holding progress meetings, managing change orders/claims, and preparing and maintaining punch lists.

**Task 2.2a – Special Inspection – Electrical:** Special electrical inspector(s) shall be brought onsite by CONSULTANT to supplement the routine daily field inspections.

**Task 2.2b – Special Inspection – Coating:** Special coatings inspector(s) shall be brought onsite by CONSULTANT to supplement the routine daily filed inspections.

**Task 2.2c – Special Inspection – Factory Acceptance Testing, Geotechnical, etc.:** CONSULTANT’s special inspectors shall be sent to witness local Factory Acceptance Testing, and special Geotechnical inspectors shall be brought onsite by CONSULTANT for any as needed Geotechnical inspection work.

**ATTACHMENT 1 TO  
EXHIBIT B  
ADDITIONAL PROJECT BUDGET AND SUMMARY**

On the following 2 pages:



**City of Beverly Hills**  
 Fee Proposal – Reverse Osmosis (R.O.) Water Treatment Plant Remediation Project  
 Revised June '15 to Reflect Requested Change Order

| Task Description  | Project Principal | QA/QC | Sr. Project Manager | Sr. Project Engineer | Project Engineer | Staff Engineer | Resident Engineer | Field Inspector | Special Inspector | CAD Designer | Project Assistant | Total Hours | Labor      | ODC        | Total      |            |
|---|-------------------|-------|---------------------|----------------------|------------------|----------------|-------------------|-----------------|-------------------|--------------|-------------------|-------------|------------|------------|------------|------------|
| <b>PHASE 1 – DESIGN</b>   |                   |       |                     |                      |                  |                |                   |                 |                   |              |                   |             |            |            |            |            |
| <b>Task 1.1 – Project Management</b>  |                   |       |                     |                      |                  |                |                   |                 |                   |              |                   |             |            |            |            |            |
| Task 1.1.1 – Kick-Off Meeting (Meeting #1)  |                   |       | 3                   | 5                    |                  |                |                   |                 |                   |              | 1                 | 12          | \$ 2,280   | \$ 72      | \$ 2,362   |            |
| Task 1.1.2 – Weekly Coord Meetings (10 migs & 10 calls)                                   |                   |       | 40                  | 80                   |                  |                |                   |                 |                   |              | 20                | 140         | \$ 24,100  | \$ 840     | \$ 24,940  |            |
| Task 1.1.3 – Technical Workshops (Task 1.1.2)   |                   |       |                     |                      |                  |                |                   |                 |                   |              |                   |             | \$ -       | \$ -       | \$ -       |            |
| Task 1.1.4 – CDPH Coordination Meeting (1 meeting)  |                   |       | 4                   | 5                    |                  |                |                   |                 |                   |              | 1                 | 10          | \$ 1,780   | \$ 60      | \$ 1,840   |            |
| Task 1.1.5 – QA/QC & Safety in Design (see specific tasks)                                |                   |       |                     |                      |                  |                |                   |                 |                   |              |                   |             | \$ -       | \$ -       | \$ -       |            |
| Task 1.1.6 – LACDPW Waste Permit Mgt (Task 1.4.2)   |                   |       |                     |                      |                  |                |                   |                 |                   |              |                   |             | \$ -       | \$ -       | \$ -       |            |
| <b>Task 1.1 – Project Management</b>  | 3                 |       | 47                  | 90                   |                  |                |                   |                 |                   |              | 22                | 162         | \$ 26,170  | \$ 972     | \$ 26,142  |            |
| <b>Task 1.2 – Data Collection and Site Assessment</b>                                     |                   |       |                     |                      |                  |                |                   |                 |                   |              |                   |             |            |            |            |            |
| Task 1.2.1 – Review As-Built Drawings   |                   |       | 2                   | 2                    | 8                |                |                   |                 |                   |              |                   | 12          | \$ 2,160   | \$ 72      | \$ 2,232   |            |
| Task 1.2.2 – Plant Assessment   |                   |       | 6                   |                      | 6                |                |                   |                 |                   |              | 2                 | 14          | \$ 2,370   | \$ 84      | \$ 2,454   |            |
| Task 1.2.3 – Sulfuric Acid Injectors Inspection (Task 1.2.2)                              |                   |       |                     |                      |                  |                |                   |                 |                   |              |                   |             | \$ -       | \$ -       | \$ -       |            |
| Task 1.2.4 – Clear Well Assessment (Task 1.2.2)   |                   |       |                     |                      |                  |                |                   |                 |                   |              |                   |             | \$ -       | \$ -       | \$ -       |            |
| Task 1.2.5 – Utility Trench Assessment (Task 1.2.2)                                       |                   |       |                     |                      |                  |                |                   |                 |                   |              |                   |             | \$ -       | \$ -       | \$ -       |            |
| Task 1.2.6 – Industrial Waste Line Condition Assessment                                   |                   |       |                     | 8                    | 12               |                |                   |                 |                   |              |                   | 20          | \$ 3,580   | \$ 120     | \$ 3,700   |            |
| Task 1.2.7 – Industrial Waste Line Dye Testing  |                   |       |                     | 8                    |                  |                |                   |                 |                   |              |                   | 8           | \$ 1,480   | \$ 48      | \$ 1,528   |            |
| <b>Task 1.2 – Data Collection and Site Assessment</b>                                     |                   |       | 8                   | 18                   | 26               |                |                   |                 |                   |              | 2                 | 64          | \$ 8,990   | \$ 324     | \$ 14,054  |            |
| <b>Task 1.3 – Mapping</b>   |                   |       |                     |                      |                  |                |                   |                 |                   |              |                   |             |            |            |            |            |
| Task 1.3.1 – Mapping  |                   | 1     |                     | 4                    |                  |                |                   |                 |                   |              | 8                 | 2           | \$ 2,080   | \$ 90      | \$ 2,150   |            |
| Task 1.3.2 – Surveying  |                   | 1     | 1                   | 4                    |                  |                |                   |                 |                   |              |                   | 7           | \$ 1,220   | \$ 42      | \$ 7,472   |            |
| <b>Task 1.3 – Mapping</b>   |                   | 1     | 1                   | 4                    |                  |                |                   |                 |                   |              | 1                 | 7           | \$ 1,220   | \$ 42      | \$ 7,472   |            |
| <b>Task 1.4 – Industrial Waste Line</b>   |                   |       |                     |                      |                  |                |                   |                 |                   |              |                   |             |            |            |            |            |
| Task 1.4.1 – Industrial Waste Line Design   |                   |       |                     | 12                   |                  | 18             |                   |                 |                   |              | 24                | 2           | \$ 7,880   | \$ 336     | \$ 8,018   |            |
| Task 1.4.2 – Industrial Waste Discharge Permitting  |                   |       | 5                   | 4                    |                  | 19             |                   |                 |                   |              | 3                 | 31          | \$ 4,505   | \$ 185     | \$ 4,691   |            |
| <b>Task 1.4 – Industrial Waste Line</b>   |                   |       | 5                   | 4                    |                  | 19             |                   |                 |                   |              | 3                 | 31          | \$ 4,505   | \$ 185     | \$ 4,691   |            |
| <b>Task 1.5 – Clear Well</b>  |                   |       |                     |                      |                  |                |                   |                 |                   |              |                   |             |            |            |            |            |
| Task 1.5.1 – Product Water Pumps  |                   |       | 4                   | 2                    |                  |                |                   |                 |                   |              |                   | 6           | \$ 1,150   | \$ 36      | \$ 1,186   |            |
| Task 1.5.2 – Water Sampling System  |                   |       | 4                   | 12                   | 8                |                |                   |                 |                   |              | 8                 | 2           | \$ 5,030   | \$ 204     | \$ 5,234   |            |
| Task 1.5.3 – Coating System   |                   |       |                     | 1                    | 8                | 4              |                   |                 |                   |              | 1                 | 14          | \$ 2,200   | \$ 84      | \$ 2,284   |            |
| Task 1.5.4 – Clear Well Overflow Sensor   |                   |       |                     | 2                    | 12               | 8              |                   |                 |                   |              | 8                 | 1           | \$ 4,585   | \$ 188     | \$ 4,771   |            |
| <b>Task 1.5 – Clear Well</b>  |                   |       | 4                   | 9                    | 32               | 20             |                   |                 |                   |              | 16                | 4           | \$ 12,865  | \$ 510     | \$ 13,475  |            |
| <b>Task 1.6 – Utility Trenches</b>  |                   |       |                     |                      |                  |                |                   |                 |                   |              |                   |             |            |            |            |            |
| Task 1.6 – Utility Trenches   |                   |       | 4                   | 8                    | 8                |                |                   |                 |                   |              | 6                 | 24          | \$ 3,670   | \$ 144     | \$ 3,814   |            |
| <b>Task 1.7 – In-Plant Valves and Operators</b>   |                   |       |                     |                      |                  |                |                   |                 |                   |              |                   |             |            |            |            |            |
| Task 1.7 – In-Plant Valves and Operators  |                   |       | 4                   | 32                   |                  |                |                   |                 |                   |              | 24                | 1           | \$ 9,295   | \$ 366     | \$ 9,661   |            |
| <b>Task 1.7 – In-Plant Valves and Operators</b>   |                   |       | 4                   | 32                   |                  |                |                   |                 |                   |              | 24                | 1           | \$ 9,295   | \$ 366     | \$ 9,661   |            |
| <b>Task 1.8 – Air Gaps and Odor Issues</b>  |                   |       |                     |                      |                  |                |                   |                 |                   |              |                   |             |            |            |            |            |
| Task 1.8.1 – Brine Box  |                   |       | 24                  | 6                    | 12               | 14             |                   |                 |                   |              | 24                | 2           | \$ 13,180  | \$ 504     | \$ 13,684  |            |
| Task 1.8.2 – CIP Scavenger Tank Inlet Pipes   |                   |       | 3                   | 6                    | 8                |                |                   |                 |                   |              | 1                 | 26          | \$ 3,810   | \$ 156     | \$ 3,966   |            |
| <b>Task 1.8 – Air Gaps</b>  |                   |       | 27                  | 14                   | 12               | 22             |                   |                 |                   |              | 32                | 3           | \$ 16,990  | \$ 660     | \$ 17,650  |            |
| <b>Task 1.9 – Bulk Chemical Tank Containment Area Improv</b>                              |                   |       |                     |                      |                  |                |                   |                 |                   |              |                   |             |            |            |            |            |
| Task 1.9.1 – Drain Line Shields   |                   |       |                     | 6                    | 4                |                |                   |                 |                   |              | 6                 | 1           | \$ 2,445   | \$ 102     | \$ 2,547   |            |
| Task 1.9.2 – Coating Systems  |                   |       | 1                   | 8                    | 4                |                |                   |                 |                   |              | 1                 | 14          | \$ 2,200   | \$ 84      | \$ 2,284   |            |
| <b>Task 1.9 – Bulk Chemical Tank Area Improvements</b>                                    |                   |       | 7                   | 8                    | 8                |                |                   |                 |                   |              | 6                 | 2           | \$ 4,645   | \$ 186     | \$ 4,831   |            |
| <b>Task 1.10 – Chemical Spill Panic Alarm System</b>                                      |                   |       |                     |                      |                  |                |                   |                 |                   |              |                   |             |            |            |            |            |
| Task 1.10 – Chemical Spill Panic Alarm System   |                   |       | 2                   | 24                   | 3                |                |                   |                 |                   |              | 12                | 2           | \$ 6,585   | \$ 258     | \$ 6,823   |            |
| <b>Task 1.10 – Chemical Spill Panic Alarm System</b>                                      |                   |       | 2                   | 24                   | 3                |                |                   |                 |                   |              | 12                | 2           | \$ 6,585   | \$ 258     | \$ 6,823   |            |
| <b>Task 1.11 – Plant Floor Improvements</b>   |                   |       |                     |                      |                  |                |                   |                 |                   |              |                   |             |            |            |            |            |
| Task 1.11.1 – Roof Drains   |                   |       | 4                   | 5                    | 8                |                |                   |                 |                   |              | 6                 |             | \$ 3,145   | \$ 126     | \$ 3,271   |            |
| Task 1.11.2 – Roof Coating System   |                   |       | 1                   | 8                    | 4                |                |                   |                 |                   |              | 1                 | 14          | \$ 2,200   | \$ 84      | \$ 2,284   |            |
| Task 1.11.3 – Plant Floor Improvements  |                   |       | 6                   | 13                   | 10               |                |                   |                 |                   |              | 8                 | 1           | \$ 5,346   | \$ 210     | \$ 5,556   |            |
| <b>Task 1.12 – Damage Repairs</b>   |                   |       |                     |                      |                  |                |                   |                 |                   |              |                   |             |            |            |            |            |
| Task 1.12 – Damage Repairs  |                   |       | 3                   | 8                    | 6                |                |                   |                 |                   |              | 6                 |             | \$ 3,485   | \$ 138     | \$ 3,623   |            |
| <b>Task 1.12 – Damage Repairs</b>   |                   |       | 3                   | 8                    | 6                |                |                   |                 |                   |              | 6                 |             | \$ 3,485   | \$ 138     | \$ 3,623   |            |
| <b>Task 1.13 – Plant Control System Improvements</b>                                      |                   |       |                     |                      |                  |                |                   |                 |                   |              |                   |             |            |            |            |            |
| Task 1.13 – Plant Control System Improvements   |                   |       | 2                   | 20                   | 3                |                |                   |                 |                   |              | 12                | 2           | \$ 6,665   | \$ 234     | \$ 6,899   |            |
| <b>Task 1.13 – Plant Control System Improvements</b>                                      |                   |       | 2                   | 20                   | 3                |                |                   |                 |                   |              | 12                | 2           | \$ 6,665   | \$ 234     | \$ 6,899   |            |
| <b>Task 1.14 – Pre-Filter Expansion</b>   |                   |       |                     |                      |                  |                |                   |                 |                   |              |                   |             |            |            |            |            |
| Task 1.14 – Pre-Filter Expansion  |                   |       | 8                   | 2                    | 24               | 10             |                   |                 |                   |              | 12                | 1           | \$ 8,995   | \$ 342     | \$ 9,337   |            |
| <b>Task 1.14 – Pre-Filter Expansion</b>   |                   |       | 8                   | 2                    | 24               | 10             |                   |                 |                   |              | 12                | 1           | \$ 8,995   | \$ 342     | \$ 9,337   |            |
| <b>Task 1.15 – Preliminary Design Report</b>  |                   |       |                     |                      |                  |                |                   |                 |                   |              |                   |             |            |            |            |            |
| Task 1.15.1 – Draft PDR   |                   | 1     | 2                   | 4                    | 6                | 4              | 13                |                 |                   |              | 6                 | 2           | \$ 6,110   | \$ 240     | \$ 6,350   |            |
| Task 1.15.2 – Final PDR   |                   |       | 1                   | 2                    | 4                | 6              | 2                 |                 |                   |              | 6                 | 2           | \$ 3,770   | \$ 150     | \$ 3,920   |            |
| <b>Task 1.15 – Preliminary Design Report</b>  |                   | 1     | 3                   | 6                    | 10               | 10             | 15                |                 |                   |              | 16                | 4           | \$ 9,880   | \$ 390     | \$ 10,270  |            |
| <b>Task 1.16 – Final Design Plans, Specifications, and Engr</b>                           |                   |       |                     |                      |                  |                |                   |                 |                   |              |                   |             |            |            |            |            |
| Task 1.16.1 – Draft Final Design Submittal (31 sheets)                                    |                   |       | 2                   | 2                    |                  |                | 8                 |                 |                   |              | 31                | 4           | \$ 5,990   | \$ 282     | \$ 6,272   |            |
| Task 1.16.2 – Final Design Submittal (31 sheets)  |                   |       | 1                   |                      |                  |                | 8                 |                 |                   |              | 8                 | 2           | \$ 2,130   | \$ 102     | \$ 2,232   |            |
| <b>Task 1.16 – Final Design Plans, Specifications and Engr</b>                            |                   |       | 2                   | 3                    |                  |                | 14                |                 |                   |              | 39                | 6           | \$ 8,120   | \$ 384     | \$ 8,504   |            |
| <b>Task 1.17 – Bidding</b>  |                   |       |                     |                      |                  |                |                   |                 |                   |              |                   |             |            |            |            |            |
| Task 1.17.1 – Technical Support   |                   |       | 2                   | 4                    |                  | 6              |                   |                 |                   |              | 2                 | 14          | \$ 2,080   | \$ 84      | \$ 2,174   |            |
| Task 1.17.2 – Bidding/Award Documents   |                   |       | 2                   | 3                    |                  | 8              |                   |                 |                   |              | 2                 | 15          | \$ 2,175   | \$ 90      | \$ 2,265   |            |
| <b>Task 1.17 – Bidding</b>  |                   |       | 4                   | 7                    |                  | 14             |                   |                 |                   |              | 4                 | 29          | \$ 4,255   | \$ 174     | \$ 4,429   |            |
| <b>Task 1.18 – Additional Design Services for Extra Scope of Work</b>                     |                   |       |                     |                      |                  |                |                   |                 |                   |              |                   |             |            |            | \$ 99,004  |            |
| <b>Subtotal – PHASE 1 – DESIGN</b>  |                   |       |                     |                      |                  |                |                   |                 |                   |              |                   |             |            |            | \$ 258,444 |            |
| <b>PHASE 2 – CONSTRUCTION</b>   |                   |       |                     |                      |                  |                |                   |                 |                   |              |                   |             |            |            |            |            |
| <b>Task 2.1 – Engineering Services During Construction</b>                                |                   |       |                     |                      |                  |                |                   |                 |                   |              |                   |             |            |            |            |            |
| Task 2.1.1 – Shop Drawing Review (109)  |                   |       | 3                   | 10                   | 327              |                |                   |                 |                   |              | 24                | 364         | \$ 61,460  | \$ 2,184   | \$ 63,844  |            |
| Task 2.1.2 – RFI/RFC (16)   |                   |       | 2                   | 6                    | 48               |                |                   |                 |                   |              | 8                 | 64          | \$ 10,500  | \$ 384     | \$ 10,884  |            |
| Task 2.1.3 – Record Plan Support (67 sheets)  |                   |       | 4                   | 3                    | 4                | 20             | 8                 |                 |                   |              | 67                | 2           | \$ 108     | \$ 14,935  | \$ 15,583  |            |
| <b>Task 2.1 – Engineering Services During Construction</b>                                |                   |       | 4                   | 8                    | 20               | 395            | 8                 |                 |                   |              | 67                | 34          | \$ 836     | \$ 86,955  | \$ 90,111  |            |
| <b>Task 2.2 – Full Time Inspection and Construction Mgmt</b>                              |                   |       |                     |                      |                  |                |                   |                 |                   |              |                   |             |            |            |            |            |
| Task 2.2 – Full Time Inspection and Construction Mgmt                                     |                   |       |                     |                      |                  |                | 504               | 1,440           |                   |              |                   | 1,944       | \$ 283,878 | \$ 11,664  | \$ 295,542 |            |
| Task 2.2a – As-Needed Special Inspection - Electrical                                     |                   |       |                     |                      |                  |                |                   |                 |                   |              | 100               |             | \$ 16,000  | \$ 600     | \$ 16,600  |            |
| Task 2.2b – As-Needed Special Inspection - Coatings                                       |                   |       |                     |                      |                  |                |                   |                 |                   |              | 100               |             | \$ 16,000  | \$ 600     | \$ 16,600  |            |
| Task 2.2c – As-Needed Special Inspection - Factory Acceptance Testing, Geotechnical, etc. |                   |       |                     |                      |                  |                |                   |                 |                   |              | 100               |             | \$ 16,000  | \$ 600     | \$ 16,600  |            |
| <b>Task 2.2 – Full Time Inspection and Construction Mgmt</b>                              |                   |       |                     |                      |                  | 504            | 1,440             | 300             |                   |              | 2,244             | \$ 331,878  | \$ 13,464  | \$ 346,342 |            |            |
| <b>Subtotal – PHASE 2 – CONSTRUCTION</b>  |                   |       | 4                   | 8                    | 20               | 395            | 8                 | 504             | 1,440             | 300          | 67                | 34          | \$ 2,780   | \$ 418,773 | \$ 16,680  | \$ 436,453 |
| Contingency (Used for Additional Design Services)   |                   |       |                     |                      |                  |                |                   |                 |                   |              |                   |             |            |            | \$ -       |            |
| <b>Total (Not-to-Exceed)</b>  | 6                 | 11    | 118                 | 205                  | 612              | 158            | 504               | 1,440           | 300               | 254          | 92                | 3,700       | \$ 562,343 | \$ 22,200  | \$ 693,897 |            |

**PROJECT BUDGET**

City of Beverly Hills  
 Fee Proposal – R.O. Water Treatment Plant Remediation Project  
 Revised June '15 to Reflect Requested Change Order



|                        |   | Task Description  | Total      |
|------------------------|---|---|------------|
| PHASE 1 – DESIGN       |   | <b>Task 1.1 – Project Management</b>                                | \$ 29,142  |
|                        |   | Task 1.1.1 – Kick-Off Meeting (Meeting #1)                          | \$ 2,362   |
|                        |   | Task 1.1.2 – Weekly Coordination Meetings (10 meetings & 10         | \$ 24,940  |
|                        |   | Task 1.1.3 – Technical Workshops (hours allocated in Task 1.1.2)    | \$ -       |
|                        |   | Task 1.1.4 – CDPH Coordination Meeting (1 meeting)                  | \$ 1,840   |
|                        |   | Task 1.1.5 – QA/QC & Safety in Design (hours allocated within       | \$ -       |
|                        |   | Task 1.1.6 – LA County DPW Industrial Waste Permit Mtg (hours       | \$ -       |
|                        |   | <b>Task 1.2 – Data Collection and Site Assessment</b>               | \$ 14,054  |
|                        |   | Task 1.2.1 – Review As-Built Drawings                               | \$ 2,232   |
|                        |   | Task 1.2.2 – Plant Assessment                                       | \$ 2,454   |
|                        |   | Task 1.2.3 – Sulfuric Acid Injectors Inspection (hours allocated in | \$ -       |
|                        |   | Task 1.2.4 – Clear Well Assessment (hours allocated in Task         | \$ -       |
|                        |   | Task 1.2.5 – Utility Trench Assessment (hours allocated in Task     | \$ -       |
|                        |   | Task 1.2.6 – Industrial Waste Line Condition Assessment             | \$ 7,840   |
|                        |   | Task 1.2.7 – Industrial Waste Line Dye Testing                      | \$ 1,528   |
|                        |   | <b>Task 1.3 – Mapping</b>   | \$ 7,472   |
|                        |   | Task 1.3.1 – Mapping  | \$ 2,150   |
|                        |   | Task 1.3.2 – Surveying  | \$ 7,472   |
|                        |   | <b>Task 1.4 – Industrial Waste Line</b>                             | \$ 4,691   |
|                        |   | Task 1.4.1 – Industrial Waste Line Design                           | \$ 8,016   |
|                        |   | Task 1.4.2 – Industrial Waste Discharge Permitting Assistance       | \$ 4,691   |
|                        |   | <b>Task 1.5 – Clear Well</b>  | \$ 13,475  |
|                        |   | Task 1.5.1 – Product Water Pumps                                    | \$ 1,186   |
|                        |   | Task 1.5.2 – Water Sampling System                                  | \$ 5,234   |
|                        |   | Task 1.5.3 – Coating System   | \$ 2,284   |
|                        |   | Task 1.5.4 – Clear Well Overflow Sensor                             | \$ 4,771   |
|                        |   | <b>Task 1.6 – Utility Trenches</b>                                  | \$ 3,814   |
|                        |   | Task 1.6 – Utility Trenches   | \$ 3,814   |
|                        |   | <b>Task 1.7 – In-Plant Valves and Operators</b>                     | \$ 9,661   |
|                        |   | Task 1.7 – In-Plant Valves and Operators                            | \$ 9,661   |
|                        |   | <b>Task 1.8 – Air Gaps and Odor Issues</b>                          | \$ 17,650  |
|                        |   | Task 1.8.1 – Brine Box  | \$ 13,684  |
|                        |   | Task 1.8.2 – CIP Scavenger Tank Inlet Pipes                         | \$ 3,966   |
|                        |   | <b>Task 1.9 – Bulk Chemical Tank Containment Area</b>               | \$ 4,831   |
|                        |   | Task 1.9.1 – Drain Line Shields                                     | \$ 2,547   |
|                        |   | Task 1.9.2 – Coating Systems  | \$ 2,284   |
|                        |   | <b>Task 1.10 – Chemical Spill Panic Alarm System</b>                | \$ 6,823   |
|                        |   | Task 1.10 – Chemical Spill Panic Alarm System                       | \$ 6,823   |
|                        |   | <b>Task 1.11 – Plant Floor Improvements</b>                         | \$ 5,555   |
|                        |   | Task 1.11.1 – Floor Drains  | \$ 3,271   |
|                        |   | Task 1.11.2 – Floor Coating System                                  | \$ 2,284   |
|                        |   | <b>Task 1.12 – Damage Repairs</b>                                   | \$ 3,623   |
|                        | Task 1.12 – Damage Repairs  | \$ 3,623  |            |
|                        | <b>Task 1.13 – Plant Control System Improvements</b>                  | \$ 6,099  |            |
|                        | Task 1.13 – Plant Control System Improvements                         | \$ 6,099  |            |
|                        | <b>Task 1.14 – Pre-Filter Expansion</b>                               | \$ 9,337  |            |
|                        | Task 1.14 – Pre-Filter Expansion                                      | \$ 9,337  |            |
|                        | <b>Task 1.15 – Preliminary Design Report</b>                          | \$ 10,270   |            |
|                        | Task 1.15.1 – Draft PDR   | \$ 6,350  |            |
|                        | Task 1.15.2 – Final PDR   | \$ 3,920  |            |
|                        | <b>Task 1.16 – Final Design Plans, Specifications, and Costs</b>      | \$ 8,504  |            |
|                        | Task 1.16.1 – Draft Final Design Submittal (31 sheets)                | \$ 6,272  |            |
|                        | Task 1.16.2 – Final Design Submittal (31 sheets)                      | \$ 2,232  |            |
|                        | <b>Task 1.17 – Bidding</b>  | \$ 4,439  |            |
|                        | Task 1.17.1 – Technical Support                                       | \$ 2,174  |            |
|                        | Task 1.17.2 – Bidding/Award Documents                                 | \$ 2,265  |            |
|                        | <b>Task 1.18 – Additional Design Services for Extra Scope of Work</b> | \$ 99,004   |            |
|                        | <b>Subtotal – PHASE 1 – DESIGN</b>                                    | \$ 258,444  |            |
| PHASE 2 – CONSTRUCTION |   | <b>Task 2.1 – Engineering Services During Construction</b>          | \$ 90,111  |
|                        |   | Task 2.1.1 – Shop Drawing Review (24)                               | \$ 63,644  |
|                        |   | Task 2.1.2 – RFI/RFC (8)  | \$ 10,884  |
|                        |   | Task 2.1.3 – Record Plan Support (31 sheets)                        | \$ 15,583  |
|                        |   | <b>Task 2.2 – Full Time Inspection and Construction Management</b>  | \$ 345,342 |
|                        |   | Task 2.2 – Full Time Inspection and Construction Management         | \$ 295,542 |
|                        |   | <b>Subtotal – PHASE 2 – CONSTRUCTION</b>                            | \$ 435,453 |
|                        | Contingency   | \$ -  |            |
|                        | <b>Total (Not-to-Exceed)</b>  | \$ 693,897  |            |

**PROJECT SUMMARY**