



## AGENDA REPORT

**Meeting Date:** January 22, 2009

**Item Number:** F-10

**To:** Honorable Mayor & City Council

**From:** Ara Maloyan, Deputy City Engineer

**Subject:** APPROVAL OF AN AGREEMENT BETWEEN THE CITY OF BEVERLY HILLS AND MWH AMERICAS, INC. FOR THE DESIGN OF FIVE WATER RESERVOIR TANKS, REPLACEMENT OF ON-SITE PIPING AT SITES 3A, 4B, 5, 6 AND 7, AND SEISMIC RETROFITTING OF THE ASSOCIATED FIVE PUMP STATIONS; AND

APPROVAL OF A PURCHASE ORDER IN THE AMOUNT OF \$788,600 TO MWH AMERICAS, INC.

**Attachments:** 1. Agreement

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### **RECOMMENDATION**

Staff recommends that the City Council move to approve an agreement between the City of Beverly Hills and Montgomery Watson Harza (MWH Americas, Inc.) in the amount of \$788,600 to prepare the design of 5 water reservoir tanks and on-site piping replacement at sites 3A, 4B, 5, 6, and 7, and seismic retrofit of the associated five pump stations; and issuance of a purchase order to MWH Americas, Inc. in the amount of \$788,600.

### **INTRODUCTION**

This report is a request for City Council approval of a design agreement with MWH Americas, Inc. for the replacement of 5 water reservoir tanks and on-site piping at sites 3A, 4B, 5, 6, and 7 in the City, and the seismic retrofit of the associated five pump stations.

## **DISCUSSION**

In August of 2002, the engineering company, Black and Veatch, prepared a Water System Master Plan report for the City of Beverly Hills. This report acts as a guide for the City to ensure a reliable and conservative water supply for its customers. The report documented the results of inspection and assessment of water system facilities and provided a phased capital improvement planning prioritized plan to year 2025.

Recommendations from the report included that all welded steel tanks and booster stations be evaluated for seismic stability to meet the current American Water Works Association (AWWA) standards for "Welded Steel Tanks for Water Storage", and to meet current California Department of Public Health (CDPH) drinking water standards.

In December 2004, a Preliminary Design Report (PDR) was prepared by the engineering company, Tetra Tech, which included site conditions, laboratory testing for lead contained paints (interior and exterior coatings), visual inspection for corrosion and a thorough inspection and assessment of the condition of the existing reservoir tank walls, roof and structural elements at sites 3A, 4B, 5, 6 and 7. The PDR concluded by recommending seismic upgrades for the 5 steel water reservoir tanks, 5 associated booster pump stations, and on-site piping at those sites.

In June 2006, Final Design Plans for the seismic retrofit/upgrading of all 5 tanks, 5 booster pump stations, and on-site piping were prepared by Tetra Tech, and in July 2006, the City received bids from three pre-qualified bidders for this retrofit work. The lowest bid received was \$5.6M, which was substantially in excess of both Tetra Tech engineer's construction cost estimate and the \$3.8M budget approved in fiscal year 2006/2007 by the City for this retrofit construction.

During their detailed review of the construction bids, City staff made a determination that in light of the unexpected high retrofit cost received during the bid process, it may be fiscally prudent to investigate the potential costs associated with replacing these 44-50 year old tanks in lieu of merely retrofitting them.

Consequently, on August 8, 2006, staff sent out four invitations for request for proposal (RFP) for the services of a Water Resources Engineer to prepare an evaluation and detailed life cycle cost analysis for retrofit versus replacement of the five subject tanks. Staff received proposals from three consultants (Black and Veatch, KEC Engineers, and Webb Associates) who were then interviewed by staff on August 30, 2006.

All three consultants agreed with the approach staff was taking, so on October 16, 2006 (for additional affirmation) staff conducted a workshop with the original construction project bidders to discuss their thoughts on retrofit versus replacement costs in light of the fact that the age of the existing tanks range from 44 to 50 years. The general consensus was that the City might well be able to replace the tanks for a cost that would vary minimally from the retrofit cost received during the bid process.

Consequently, the City entered into an agreement with Webb Associates in July 2007 to prepare an Evaluation and Detailed Life Cycle Cost Analysis of the Five Welded Steel Water Storage Tanks for retrofit versus replacement. The final report was submitted in December 2007 and based on this analysis, it was concluded that the replacement option of these tanks and on-site piping was more fiscally prudent than the retrofit option.

On October 23, 2008, the City sent out six invitations for request for proposal (RFP) to provide professional engineering services for the design of the five new water reservoir tanks, on-site piping, and seismic retrofit of the booster pump stations at sites 3A, 4B, 5, 6, and 7. Three responsive proposals were received on November 24, 2008, from MWH Americas, Inc., RBF Consulting, and Webb Associates who were subsequently interviewed by City staff on December 16, 2008.

Staff concurs in their selection of MWH Americas, Inc. to prepare the requested design and provide services during bid phase.

Staff recommends that a contract for design of five new water reservoir tanks and on-site piping to replace the existing five welded steel water reservoir tanks at Sites 3A, 4B, 5, 6, and 7, and seismic retrofit design for the associated 5 booster pump stations be awarded to MWH Americas, Inc. for an amount not to exceed \$788,600.

**FISCAL IMPACT**

Funds for this project are provided as follows:

FUND	PROJECT NUMBER	SUB-PROJECT NUMBER	FUNDING SOURCE	AMOUNT
80	796	35-80-0796-85040	80 Water Enterprise Net Assets	\$788,600

  
\_\_\_\_\_  
Scott Miller  
Finance Approval

  
\_\_\_\_\_  
David Gustavson  
Approved By

AGREEMENT BETWEEN THE CITY OF BEVERLY HILLS  
AND MWH AMERICAS, INC. FOR THE DESIGN OF FIVE  
WATER RESERVOIR TANKS, REPLACEMENT OF ON-SITE  
PIPING AT SITES 3A, 4B, 5, 6 AND 7, AND SEISMIC  
RETROFITTING OF THE ASSOCIATED FIVE PUMP  
STATIONS

NAME OF CONSULTANT: MWH Americas, Inc.

RESPONSIBLE PRINCIPAL  
OF CONSULTANT: James H. Borchardt

CONSULTANT'S ADDRESS: 618 Michillinda Ave., Suite 200  
Arcadia, California 91007  
Attention: Simon Bluestone

CITY'S ADDRESS: City of Beverly Hills  
345 N. Foothill Road  
Beverly Hills, CA 90210  
Attention: Samer Elayyan

COMMENCEMENT DATE: January 23, 2009

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

CONSIDERATION: Not to exceed \$788,600 based on the rates  
and cost estimates set forth in Exhibit B-1

AGREEMENT BETWEEN THE CITY OF BEVERLY HILLS  
AND MWH AMERICAS, INC. FOR THE DESIGN OF FIVE  
WATER RESERVOIR TANKS, REPLACEMENT OF ON-SITE  
PIPING AT SITES 3A, 4B, 5, 6 AND 7, AND SEISMIC  
RETROFITTING OF THE ASSOCIATED FIVE PUMP  
STATIONS

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

RECITALS

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

B. CONSULTANT represents that it is qualified and able to perform the services.

NOW, THEREFORE, the parties agree as follows:

Section 1. CONSULTANT's Services. CONSULTANT shall perform the services 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.

Section 2. Time of Performance. CONSULTANT shall perform the services on or by the Termination Date set forth above. The City Manager or his designee may extend the time of performance in writing for two additional one-year periods pursuant to the same terms and conditions of the Agreement.

Section 3. Compensation. CITY agrees to compensate CONSULTANT, and CONSULTANT agrees to accept in full satisfaction for the services required by this Agreement the Consideration set forth above and more particularly described in Exhibit B-1, attached hereto and incorporated herein. Said Consideration shall constitute reimbursement of CONSULTANT's fee for the services as well as the actual cost of any equipment, materials, and supplies necessary to provide the services (including all labor, materials, delivery, tax, assembly, and installation, as applicable). CITY shall pay CONSULTANT said Consideration in accordance with the schedule of payment set forth in Exhibit B-2, attached hereto and incorporated herein.

Section 4. 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 5. Assignment. CONSULTANT shall not assign or attempt to assign any portion of this Agreement without the prior written approval of CITY.

Section 6. 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 7. Personnel. CONSULTANT represents that it has, or shall secure at its own expense, all personnel required to perform CONSULTANT's services under this Agreement. All personnel engaged in the work shall be qualified to perform such services.

Section 8. 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 services contemplated by this Agreement. No person having any such interest shall be employed by or be associated with CONSULTANT.

Section 9. Insurance.

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

(b) CONSULTANT shall at all times during the term of this Agreement carry, maintain, and keep in full force and effect, 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 services required by this Agreement.

(c) CONSULTANT shall at all times during the term of this Agreement, carry, maintain and keep, in full force and effect, 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.

(d) CONSULTANT agrees to maintain in force at all times during the performance of work under this Agreement workers' compensation insurance as required by law.

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

(f) 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.

(g) 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.

(h) 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 policies of insurance required by this Agreement other than Professional 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.

(i) The insurance provided by CONSULTANT shall be primary to any coverage available to CITY. The policies of insurance required by this Agreement other than Professional Liability Insurance shall include provisions for waiver of subrogation.

(j) 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 10. Indemnification. In the connection with its professional services, CONSULTANT agrees to indemnify, hold harmless and defend CITY, City Council and each member thereof, and every officer, employee and agent of CITY, from any claim, liability or financial loss (including, without limitation, attorneys fees and costs) to the extent such claim, liability or financial loss arises from any reckless, negligent, or willful misconduct of CONSULTANT or any person employed by CONSULTANT in the performance of this Agreement. In connection with all claims not covered by the foregoing paragraph, CONSULTANT agrees to indemnify, hold harmless and defend CITY, City Council and each member thereof, and every officer, employee and agent of CITY, from any claim, liability or financial loss (including, without limitation, attorneys fees and costs) arising from any intentional, reckless, negligent or otherwise wrongful acts, errors or omissions of CONSULTANT or any person employed by CONSULTANT in the performance of this Agreement.

Section 11. Termination.

(a) CITY may cancel this Agreement at any time upon five (5) 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 full compensation for all services performed by CONSULTANT, in an amount to be determined as follows: For work done in accordance with all of the terms and provisions of this Agreement, CONSULTANT shall be paid an amount equal to the amount of services performed prior to the effective date of termination or cancellation; provided, in no event shall the amount of money paid under the foregoing provisions of this paragraph exceed the amount which would be paid CONSULTANT for the full performance of the services required by this Agreement.

Section 12. 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 services.

Section 13. 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 at CITY's sole risk.

Section 14. Changes in the Scope of Work. The 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 15. Notice. Any notice required to be given to CONSULTANT shall be deemed duly and properly given upon delivery, if sent to CONSULTANT postage prepaid to the CONSULTANT's address set forth above or personally delivered to CONSULTANT at such address or other address specified to CITY in writing by CONSULTANT.

Any notice required to be given to CITY shall be deemed duly and properly given upon delivery, if sent to CITY postage prepaid to CITY's address set forth above or personally delivered to CITY at such address or other address specified to CONSULTANT in writing by CITY.

Section 16. Attorneys' Fees. In the event of litigation between the parties arising out of or connected with this Agreement, the prevailing party in such litigation shall be entitled to recover, in addition to any other amounts, reasonable attorney's fees and costs of such litigation.

Section 17. 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 18. Governing Law. The interpretation and implementation of this Agreement shall be governed by the domestic law of the State of California.

Section 19. 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 \_\_\_\_ day of \_\_\_\_\_ 200\_\_, at Beverly Hills, California.

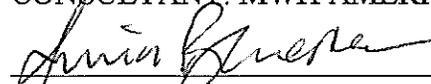
CITY OF BEVERLY HILLS  
A Municipal Corporation

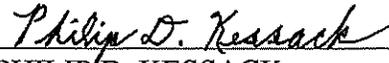
\_\_\_\_\_  
BARRY BRUCKER  
Mayor of the City of Beverly Hills, California

ATTEST:

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

CONSULTANT: MWH AMERICAS, INC.

  
\_\_\_\_\_  
SIMON BLUESTONE  
Vice President

  
\_\_\_\_\_  
PHILIP D. KESSACK  
Assistant Secretary

APPROVED AS TO FORM



LAURENCE S. WIENER  
City Attorney

APPROVED AS TO CONTENT:

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RODERICK J. WOOD  
City Manager



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DAVID D. GUSTAVSON  
Director of Public Works & Transportation



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KARL KIRKMAN  
Risk Manager

EXHIBIT A  
SCOPE OF SERVICES

CONSULTANT shall perform the following services in connection with the design of five water reservoir tanks, the replacement of piping at sites 3A, 4B, 5, 6, and 7, and the seismic retrofitting of the associated five pump stations.

MWH will perform the following professional engineering services for design of five new water reservoir tanks and on-site piping to replace the existing five welded steel water reservoir tanks at Sites 3A, 4B, 5, 6, and 7 and the seismic retrofit of the associated five pump stations, hereinafter referred to as the “Tank Replacement Project” or the “Project”. The work will consist of the following tasks:

**PART 1 – DETAILED DESIGN**

**Task 1.1 – Collection of Reference Documents**

MWH will solicit, collect, and assemble all available reference documents for the project, including existing statements, reports, designs, and other documents on the tanks and pump stations, water quality data, operating records, and other data relevant to the completion of the work. A reference library will be established in our Arcadia offices to readily allow access to all team members.

**Task 1.2 – Dynamic Model Analysis**

MWH will develop a dynamic hydraulic model to evaluate operation of the storage tanks and pump stations. The model will utilize the City’s existing static model. It is assumed that diurnal flow variations can be readily obtained from City SCADA records or that typical demand curves can be used. Work will consist of:

- a. Develop a dynamic model of Zones 8, 9, 11, 13, 15, and 16 to simulate 24 hour operation of the tanks and pump stations.
- b. Evaluate continuation of service in these zones during anticipated construction sequence and duration
- c. Evaluate time-of-use pumping and potential energy savings under two flow conditions (e.g. maximum and average demand) for one selected rate schedule.
- d. Evaluate water age and turnover of tank contents to ensure maintenance of water quality under three potential flow conditions (maximum, average and minimum demand). Identify need for supplemental mixing systems (i.e. Solar Bee or similar) and rechlorination facilities.
- e. Evaluate three alternative tank sizing scenarios and impact on above items. The anticipated three scenarios consist of replace in-kind, uniform sizing, and maximum storage.

Summarize the findings and recommendations of the analysis in a brief Draft Technical Memorandum. Incorporate written comments received from the City and issue a Final Technical Memorandum on Dynamic Model Analysis.

### **Task 1.3 – Approvals and Permits**

MWH will identify approvals and permits needed to complete the work and meet with the City prior to direct contact with governing agencies. Work will consist of the following items:

- a. Prepare list of approvals and permits needed to complete the work.
- b. Meet with the City to discuss the list and develop an approach to each, based on City issues and concerns.
- c. Separate the list into contractor obtained and City obtained items. Contractor obtained approvals and permits will be referenced in the design specifications.
- d. Initiate contact with governing agencies and prepare and submit applications for the City obtained permits. It is assumed that the City will pay all application fees.

It is anticipated that the City obtained permits and approvals will consist of (1) Amendment to the Domestic Water Supply Operating Permit from the California Department of Public Health, (2) Compliance with existing general permits for discharge of groundwater or surface water for tank operation with the Regional Board, and (3) a discharge permit under the MS4 permit for discharge to storm drains, also from the Regional Board.

There are also a number of City departments with potential review and approval authority over the project: Building & Safety, Public Works (Stormdrains and Traffic), Fire Department, and Community Development. One early activity included in items c. and d. above is to coordinate with each of these departments to determine whether a City project might obtain a waiver and what conditions each department might place on the project.

### **Task 1.4 – Field Investigations**

MWH will conduct field investigations to complete the work.

- a. Conduct a site tour with City personnel and key design team members.
- b. Identify and prepare a summary list of retrofit and upgrade items at each site, consisting of seismic restraints, vulnerability assessment upgrades, and diesel containment issues.
- c. Prepare geotechnical investigations of the five sites, including subsurface exploration with up to two borings per site. Data obtained from the field exploration and subsequent laboratory testing will be used to prepare a geotechnical report, consisting of engineering analysis and design and construction recommendations.
- d. Prepare corrosion control recommendations.
- e. Prepare site surveys and establish benchmarks for use during the design period and to be preserved for construction use by the Contractor.

### **Task 1.5 – Plans and Specifications**

MWH will prepare detailed design plans and specifications for the proposed Tank Replacement Project

- a. 10% Design submittal. This submittal will contain the following:
    - Preliminary site plans
    - Process flow diagrams
    - Design criteria
    - Preliminary geotechnical and seismic criteria
    - Preliminary equipment list
    - Final surveys
    - Drawing list
    - Specification outline
  - b. 50% Design submittal. This submittal will contain the following:
    - Front end specifications
    - Preliminary grading plans
    - Preliminary piping plans
    - Preliminary pump station seismic retrofit drawings
    - Structural tank plans and sections
    - Preliminary instrument list and P&IDs
    - Preliminary technical specifications
    - Draft calculations
- 90% Design submittal. This submittal will contain the following:
- Drawings
  - Specifications
  - Calculations
- 100% Design submittal. This submittal will contain the following:
- Signed and stamped drawings and specifications
  - Written responses to review comments

### **Task 1.6 – Constructability Review**

MWH will convene a two-day constructability meeting to identify construction issues and develop a suitable design approach to address project cost and schedule items. The meeting will follow the 10 percent design submittal. A second, one-day meeting will be convened following the 90 percent submittal to evaluate response to issues and assess bidability of the construction documents.

### **Task 1.7 – Opinion of Probable Construction Cost**

MWH will provide cost estimating services at specific points during completion of design. Services are itemized below.

- a. Perform an initial cost validation of the previous project and develop a conceptual level (Class 5) opinion of probable construction cost at the 10% level of design completion.

- b. Prepare an opinion of probable construction cost (Class 2) at the 90% level of design completion.

The opinion of probable construction cost will be prepared in accordance with the cost estimate classes defined by the Association for the Advancement of Cost Engineering. The City acknowledges that MWH has no control over costs of labor, materials, competitive bidding environments and procedures, unidentified field conditions, financial and/or market conditions, or other factors likely to affect the opinion of probable construction cost of this project, all of which are and will unavoidably remain in a state of change, especially in light of the high volatility of the market attributable to Acts of God and other market events beyond the control of the parties. The City further acknowledges that this is a “snapshot in time” and that the reliability of this opinion of probable construction cost will inherently degrade over time. The City agrees that MWH cannot, and does not, make any warranty, promise, guarantee, or representation, either expressed or implied, that proposals, bids, project construction costs, or cost of operation or maintenance will not vary substantially from MWH’s good faith opinion of probable construction cost.

## **PART 2 – BID PERIOD ASSISTANCE**

MWH will provide bid period assistance as presented below. It is assumed that the City is responsible for printing and distributing bid documents and managing the bid period.

### **Task 2.1 – Response to Bid Period Questions**

MWH will respond at the City’s request to bid period questions received from potential bidders.

### **Task 2.2 – Pre-bid Conference**

MWH will attend the pre-bid conference and site tour and assist the City in describing the project.

### **Task 2.3 – Addenda**

MWH will prepare written addenda items in response to bidder questions and to correct identified errors or omissions in Consultant’s design. Drawings will generally not be reissued, unless needed to clarify the response.

### **Task 2.4 – Bid Opening and Review**

MWH will attend the bid opening and assist the City in the evaluation and recommendation of bid award.

## **PART 3 – ENGINEERING SERVICES DURING CONSTRUCTION**

### **Task 3.1 – Submittal Review**

Review shop drawings, diagrams, illustrations, catalog data, schedule and samples, the results of laboratory tests and inspections, and other data submitted for conformance with the design concept of the project and compliance with the provisions of the contract documents. Review maintenance and operating instructions, guarantees, warranties, bonds and certificates of inspection, tests, and approvals. The budget for this Task is based on an anticipated volume of 80 shop drawings (including re-submittals) received from the City's construction manager and entered on the submittal log. Additionally, it is estimated that there will be six samples submitted for review and evaluation.

### **Task 3.2 – Contract Document Interpretation and Clarification**

Respond to Request for Information (RFIs), and issue contract design clarification (CDCs), as deemed necessary to support construction activities. Notify the City of any such requested deviations or substitutions and when necessary provide the City with a recommendation concerning the same. The budget for this Task is based on an estimated volume of 80 RFIs received from the City's construction manager and entered on the submittal log.

### **Task 3.3 – Change Order Assistance**

Review and evaluate proposed change orders submitted by the contractor and required by consultant's errors or omissions. The review of other types of proposed design changes, such as unforeseen conditions or increases in the scope of work, will be addressed as out-of-scope work and subject to negotiation.

### **Task 3.4 – Site Visits**

Furnish the services of discipline engineers (civil, structural, architectural, instrumentation and control, electrical, and mechanical.) on an as-needed basis throughout the duration of construction. An estimate of 15 inspections, each with an average duration of one half day are budgeted in this Task. In addition, off-site inspections may be required for factory testing, fabrication inspections, shop or batch plant inspections. It is estimated that a total of two, one day trips will be necessary for off-site inspections.

### **Task 3.5 – Conformed and Record Drawings**

MWH will prepare conformed drawings for use during the construction period. The conformed drawings will reflect changes from issued bid addenda and be submitted in electronic (PDF) format. At the completion of construction, MWH will prepare final versions of record drawings based on a single, complete set of marked-up drawings received from the contractor. MWH will revise the original Microstation CAD drawings to reflect the changes recorded during construction, and provide the City with one full-size reproducible set (mylars) of record drawings and an electronic file in AutoCAD format.

## **PART 4 – PROJECT MANAGEMENT AND MEETINGS**

MWH will manage the project, attend meetings, and complete internal quality control procedures, as itemized below:

### **Task 4.1 – Project Administration**

MWH will administer the project through project completion in January 2012, as follows:

- a. Coordinate work efforts of the team and communication with the City.
- b. Provide project administration and document control.
- c. Prepare monthly invoices.
- d. Establish electronic communication between the City and consultant. In general, email will be used to transfer small Word or Excel files. However, larger design files will require use of an FTP site or possibly access to ProjectWise (MWH internal design file system).

### **Task 4.2 – Coordination Meetings**

MWH will conduct and attend project coordination meetings. Project coordination meetings cover the design and bidding periods of the project only (i.e. PART 1 – Detailed Design and PART 2 – Bid Period Services). Meetings during the construction period are as described in PART 3 – Engineering Services During Construction.

- a. Conduct kick-off meeting to establish communication guidelines; review project objectives, schedule and scope of work; confirm dates of meetings and deliverables; and discuss information requests. Prepare meeting minutes for delivery within three working days.
- b. Conduct site tour for design disciplines.
- c. Conduct bi-weekly progress and coordination meetings with City staff at the City Public Works Building. Submit a written project status report to the City at each meeting and prepare meeting minutes for delivery within three working days.
- d. Conduct up to three project review meetings, as needed to address specific issues not addressed by regularly scheduled progress meetings.

### **Task 4.3 – Quality Control**

MWH will provide standard quality control procedures on MWH deliverables through project completion in January 2012, as follows:

- a. Implement internal quality control procedures and complete criteria reviews, document reviews, and review of calculations.
- b. Prepare written responses to review comments received from the City.
- c. Prepare review certifications that procedures are complete.

## **PROJECT ASSUMPTIONS**

- The City will make available the electronic AutoCAD files from the previous bid documents dated June 2006.
- The City will provide timely access to the sites, all relevant documents and data, and to City staff to allow efficient completion of the work.
- The City will provide MWH with a working, calibrated hydraulic model of the distribution zones impacted by the work.
- Design submittals will include 5 hard copies and one electronic (PDF) file. Other submittals will be electronic files only.
- The City will be responsible for all CEQA and public outreach efforts required for completion of the work. MWH has not budgeted for any time spent attending public meetings, preparing project descriptions, evaluating or quantifying construction impacts, or similar items.
- The design will be based on MWH drawing and specification standards.
- The project budget is based on the period of performance shown in the schedule, with design substantially complete in July 2009 and construction substantially complete in 2011. If the project is delayed beyond January 2012, the outstanding task items remaining will be subject to negotiation due to the escalation of salary rates and other additional costs.
- The schedule of the project is based on a total review period of 2 weeks per submittal. MWH assumes that all comments from the City will be received within 2 weeks of each submittal date. Comments received after the 2 week comment period following 100% check set design package submittal will be addressed by addendum.
- The hours and budget established for Task 1.3 - Approvals and Permits are estimates only, since actual time to obtain permits cannot be known and involves agency actions beyond our control (especially agency timing and reviews). MWH will monitor this task carefully and inform the City when 75 percent of the hours/budget are expended and estimate what additional hours may be needed to complete this task. If the amount to accomplish Task 1.3 will exceed \$22,300, then the City will discuss with MWH the proposed action and may amend the budget for this item. If the hours for this Task 1.3 are below the proposed budget amount of \$22,300, these hours may not be transferred to other tasks and thus the City will not be charged for hours not utilized.
- The City will screen all questions and requests for information during the bidding and construction periods, and forward to MWH only those technical design questions that cannot be readily answered.

## **PROJECT SCHEDULE**

The project schedule is shown below and made part of this scope of work. Key milestones include delivery of bid-ready documents on or before July 27, 2009, projected start of construction in early November, 2009, and construction completion by January, 2012. Task

durations assumed in the schedule are preliminary, and may be adjusted during the course of the work, as needed.

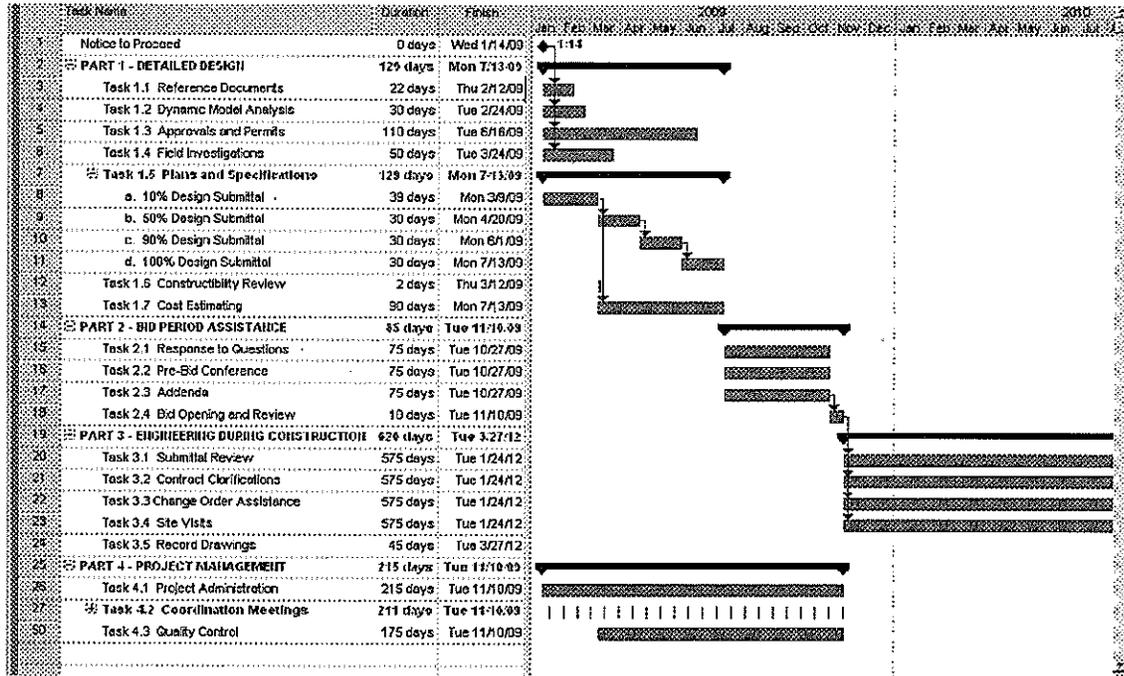


EXHIBIT B-1

SCHEDULE OF HOURLY RATES



**CITY OF BEVERLY HILLS – TANK REPLACEMENT PROJECT**

The rates provided below shall be in effect until January 1, 2010 however will be adjusted on an annual basis. The fixed fee, not to exceed contract amount takes into consideration the annual adjustment. MWH will provide a new rate sheet on January 1, 2011. Services provided by MWH's personnel in various labor categories will be billed at the following rates:

<b>Labor Category</b>		<b>Hourly Rate</b>
Project Manager		\$240
Project Engineer		\$152
Technical Review Committee		\$235
Principal Engineer		\$205
Supervising Engineer		\$175
Project/Senior Engineer		\$150
Professional Engineer		\$140
Associate Engineer		\$125
Senior Designer		\$155
Designer		\$125
Sr. Accountant		\$105
Administrative Assistant		\$95

Non-salary expenses directly attributed to the project such as:

- 1) Other Direct Costs (ODCs) and Subconsultant costs as set forth in the attached spreadsheet.
- 2) Mileage per current IRS guidelines (\$0.58 per mile as of December, 2008).
- 3) CAD rate in the amount of \$16 per hour.
- 4) Travel costs, if necessary in an amount not to exceed \$1,600.
- 5) Reprographics cost in an amount not to exceed \$3,000.

The proposed services are to be provided to the City for a not-to-exceed fixed fee amount of \$788,600. The project budget is presented below for individual Parts and Tasks as estimates in each category and not as contractual amounts except as otherwise provided for in this Agreement.

ITEM	TASK/DELIVERABLE	BUDGET
PART 1 – DETAILED DESIGN		\$ 536,300
1.1	Collection of Reference Documents	\$6,300
1.2	Dynamic Model Analysis	
	a. Develop dynamic model	\$ 7,300
	b. Service continuation	\$ 4,400
	c. Time-of-use pumping	\$ 4,300
	d. Turnover and mixing	\$ 5,300
	e. Tank sizing	\$ 4,000
1.3	Approvals and Permits	
	a. List of approvals and permits	\$ 2,000
	b. Meet with City to develop approach	\$ 4,400
	c. Identify City and Contractor obtained items	\$ 2,400
	d. Initiate City items and submit applications	\$ 14,800
1.4	Field Investigations	
	a. Site tour	\$ 3,500
	b. List of retrofit items	\$ 600
	c. Geotechnical investigation	\$ 26,400
	d. Corrosion control recommendations	\$ 9,900
	e. Survey	\$ 13,200
1.5	Plans and Specifications	
	a. Design submittal at 10% completion	\$ 94,200
	b. Design submittal at 50% completion	\$ 103,600
	c. Design submittal at 90% completion	\$ 108,000
	d. Design submittal at 100% completion	\$ 77,600
1.6	Constructability Review	
	a. Constructability meeting	\$ 17,500
	b. Bidability meeting	\$ 8,800
1.7	Opinion of Probable Construction Cost	
	a. Class 5 at 10% completion	\$ 5,300
	b. Class 2 at 90% completion	\$ 12,500
PART 2 – BID PERIOD SERVICES		\$ 12,500
2.1	Response to bid period questions	\$ 3,900
2.2	Pre-bid conference	\$ 1,600
2.3	Addenda	\$ 5,900
2.4	Bid opening and review	\$ 1,100

PART 3 – ENGINEERING DURING CONSTRUCTION		\$ 161,600
3.1	Shop drawing reviews	\$ 63,600
3.2	RFI responses	\$ 48,600
3.3	Change order memoranda	\$ 14,000
3.4	Inspection reports	\$ 19,800
3.5	Conformed and Record drawings	\$ 15,600
PART 4 – PROJECT MANAGEMENT AND MEETINGS		\$ 78,200
4.1	Project administration	\$ 24,600
4.2	Meetings and status reports	\$ 20,300
4.3	Quality Control	\$ 33,300
PROJECT TOTAL		\$ 788,600



CITY OF BEVERLY HILLS - WATER TANK REPLACEMENT PROJECT - PROPOSED BUDGET

Task Description	MWH LABOR										OUTSIDE SERVICES					OTHER DIRECT CHARGES					TOTAL FEE							
	Project Manager	Project Engineer	Technical Review Committee	Principal Engineer	Supervising Engineer	Senior Engineer	Professional Engineer	Responsible Engineer	Senior Designer	Senior Accountant	Admin	TOTAL HOURS	TOTAL MWH LABOR	Geotechnical - Concrete Consultants	Surveying - On Line Engineering	Corrosion Control - VSA	Markup	TOTAL OUTSIDE SERVICES	Travel	Materials		Repro	CAD	Markup	TOTAL DDCL			
<b>PART 1 - DETAILED DESIGN</b>																												
Task 1.1 Collection of Reference Documents	48	364	72	5,205	1,755	1,550	1,140	208	308	308	32	72																
Task 1.2 Construction Methods	2	12																										
Task 1.3 Access and Permits	2	12																										
Task 1.4 Field Investigations	2	24																										
Task 1.5 Plans and Specifications	12	265	72	280	316	120	156	203	510	400	60	2,388	5,355	852														
Task 1.6 Constructability Review	4	16																										
Task 1.7 Opinion of Probable Construction Cost	4	16																										
<b>PART 2 - BID PERIOD ASSISTANCE</b>																												
Task 2.1 Response to Bidder Questions	10	32																										
Task 2.2 Pre-Bid Conference	2	12																										
Task 2.3 Bid Opening and Award	2	12																										
<b>PART 3 - ENGINEERING DURING CONSTRUCTION</b>																												
Task 3.1 Submittal Review	28	116	16	130	128	88	204	114			24	1018	1,686	702														
Task 3.2 Construction Document Clarification	12	40		42	48	48	120	100			12	422	583	110														
Task 3.3 Change Order Assistance	6	20		32	44	40	64	64			12	328	548	524														
Task 3.4 Site Visits	8	18	16	32	24						76	514	880															
Task 3.5 Record Drawings	8	18	16	32	24						84	516	772															
<b>PART 4 - PROJECT MANAGEMENT</b>																												
Task 4.1 Project Administration	74	74	60	52	52						108	1,088	1,371															
Task 4.2 Coordination Meetings	16	36		32	32						40	328	379	808														
Task 4.3 Quality Control	4	20	60	40	40						52	520	357															
<b>Totals</b>	160	576	448	624	592	205	516	392	540	500	40	136	4,444	\$710,072	\$ 25,000	\$ 12,000	\$ 10,000	\$ 4,700	\$ 51,700	\$ 1,600	\$ 2,400	\$ 3,000	\$ 16,788	\$ 2,417	\$ 26,515	\$ 748,600		

## EXHIBIT B-2

### Schedule of Payment

CONSULTANT shall submit an itemized statement to CITY for its services performed, which shall include documentation setting forth in detail a description of the services rendered. CITY shall pay CONSULTANT the amount of such billing within thirty (30) days of receipt of same.



**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 (A. B. C.)	COVERAGE	POLICY NUMBER	EXPIRATION DATE	B.I.	<u>LIMITS</u> P.D.	AGGREGATE
	<input type="checkbox"/> AUTOMOBILE LIABILITY <input type="checkbox"/> GENERAL LIABILITY <input type="checkbox"/> PRODUCTS/COMPLETED OPERATIONS <input type="checkbox"/> BLANKET CONTRACTUAL <input type="checkbox"/> CONTRACTOR'S PROTECTIVE <input type="checkbox"/> PERSONAL INJURY <input type="checkbox"/> EXCESS LIABILITY <input type="checkbox"/> WORKERS' COMPENSATION <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: Contractor 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 contractor's officers, employees, agents or others employed by Contractor while engaged by Contractor 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: \_\_\_\_\_