

**Council Meeting: April 8, 2008****SUBJECT: Award of a Contract to Design and Prepare Construction Documents for the Rehabilitation of Four Air Flotation Thickeners at the Water Pollution Control Plant (F0711-50)****REPORT IN BRIEF**

Approval is requested for the award of a contract in the amount of \$403,100 to RMC Water and Environment of San Jose, for design services and the preparation of construction documents for the Rehabilitation of four Air Flotation Thickeners at the Water Pollution Control Plant, and the approval of a contingency in the amount of \$60,465, for the Department of Public Works Engineering Division (Project No. UY-08/02-09).

BACKGROUND

The four Air Flotation Thickener (AFT) units at the Water Pollution Control Plant (WPCP) are an integral part of the tertiary process in the treatment of wastewater at the facility. Each unit consists of a concrete clarifier tank 60' in diameter with a center mechanical column. The center column receives wastewater from the fixed growth reactors, delivers it into the tank, injects air and polymer into the water column, and controls the top and bottom skimmers located inside the tank. The injected air and polymer coagulates algae dissolved into the water which is then skimmed from the tank and sent to the anaerobic digesters for further processing. The WPCP requires three functioning AFT units to efficiently process the amount of wastewater received by the facility.

Three of the AFT units were constructed in 1975. Unit 4 was constructed in 1982. The center mechanical unit in AFT 4 failed in April 2007 and had to be repaired (Awarded by Council 4/24/2007, RTC #07-127). All the units require full rehabilitation, which includes, but is not limited to, repair or replacement of gates and valves, repair and recoating of the concrete tank interiors, seismic retrofit if required, and mechanical reconditioning of center column components. The rehabilitation will also include the electrical reconditioning or replacement of all electrical devices, including conduits, conductors and the motor control center. The work will also include corrosion protection on all exposed metal surfaces. It is estimated that the design schedule will run into January of 2009.

DISCUSSION

Specifications were developed by Purchasing and Public Works staff. The Request for Proposals process was selected because, unlike an Invitation for Bids, it allows for consideration of factors other than cost during the initial proposal evaluation. In this instance, staff determined that proposals would be evaluated, based upon the following criteria:

- Background, experience, and commitment of the Project manager
- Firm's qualifications, experience, references, and overall qualifications of the project team
- Proposed scope of services
- Project management plan and schedule
- Staffing allocations to the project tasks
- Firm's background and organization
- Overall responsiveness to the Request for proposals

Request for Proposals (RFP) F0711-50 was issued on December 13, 2007. The RFP was mailed directly to eight Bay Area engineering firms and broadcast to other potential consultants through the Onvia DemandStar public procurement network. Fourteen consultants requested RFP documents.

Sealed proposals were publicly opened on January 16, 2008. Proposals were received from:

- RMC Water and Environment of San Jose
- Brown and Caldwell of Walnut Creek
- Carollo Engineers of Walnut Creek
- ECO:LOGIC Consulting Engineers of Rocklin
- Lee & Ro, Inc., of Walnut Creek
- Waterworks Engineers, LLC of Oakland

A selection committee of representatives from the Environmental Services and Engineering Divisions of Public Works reviewed and scored the proposals. Following a comprehensive review of the written proposals, the four most qualified consultants were selected to continue in the process and were interviewed by the committee.

Staff determined RMC Water and Environment was the most qualified consultant because of its definitive project approach, stated considerations for schedule, and quality assurance. In addition, the Project Manager to be assigned to the City's project has exceptional knowledge and leadership skills.

After selecting the most qualified consultant, staff opened all of the Proposers' pricing envelopes. Project costs proposed by the six firms who responded to the solicitation ranged from \$198,280 to \$782,988. Staff determined that the \$403,100 proposed by RMC is a reasonable cost for the required services. The committee judged the breakdown of hours and tasks shown in proposal to be appropriate for a successful completion of the project.

FISCAL IMPACT

Project costs are as follows:

Professional Services	\$403,100
Design Contingency (15%)	<u>\$60,465</u>
Total Cost	\$463,565

Funds are available in Public Works Project No. 825141 (Air Flotation Thickener Tank Rehabilitation).

PUBLIC CONTACT

Public contact was made by posting the Council agenda on the City's official-notice bulletin board outside City Hall, in the Council Chambers lobby, in the Office of the City Clerk, at the Library, Senior Center, Community Center and Department of Public Safety; posting the agenda and report on the City's Web site; and making the report available at the Library and the Office of the City Clerk.

RECOMMENDATION

It is recommended that Council:

1. Award a contract, in substantially the same form as the attached draft and in the amount of \$403,100, to RMC Water and Environment for design and the preparation of construction documents for the Rehabilitation of Four Air Flotation Thickeners at the Water Pollution Control Plant; and
2. Approve a design contingency in the amount of \$60,465.

Reviewed by:

Mary J. Bradley, Director of Finance

Prepared by: Karen Theriault, Interim Purchasing Officer

Reviewed by:

Marvin Rose
Director of Public Works

Approved by:

Amy Chan
City Manager

Attachments

Draft Consultant Services Agreement

DRAFT

**CONSULTANT SERVICES AGREEMENT
BETWEEN CITY OF SUNNYVALE AND RMC WATER AND ENVIRONMENT
TO DESIGN AND PREPARE CONSTRUCTION DOCUMENTS FOR THE
REHABILITATION OF FOUR AIR FLOATATION THICKENERS AT THE
WATER POLLUTION CONTROL PLANT**

THIS AGREEMENT, dated _____, is by and between the CITY OF SUNNYVALE, a municipal corporation ("CITY"), and RMC WATER AND ENVIRONMENT ("CONSULTANT").

WHEREAS, CITY desires to secure environmental engineering consulting services to design and prepare construction documents for the rehabilitation of four Air Floatation Thickeners (AFT) at the City's Water Pollution Control Plant (WPCP), 1444 Borregas Avenue, Sunnyvale, CA 94089 ; and

WHEREAS, CONSULTANT represents that it, and its sub-consultants, if any, possess the professional qualifications and expertise to provide the required services and are licensed by the State of California to practice engineering in the required disciplines;

NOW, THEREFORE, THE PARTIES ENTER INTO THIS AGREEMENT.

1. Services by CONSULTANT

CONSULTANT shall provide services in accordance with Exhibit "A" entitled "Scope of Work." All exhibits referenced in this Agreement are attached hereto and are incorporated herein by reference. To accomplish that end, CONSULTANT agrees to assign Marilyn Bailey to this project, to act in the capacity of Project Manager and personally direct the professional services to be provided by CONSULTANT.

Except as specified in this Agreement, CONSULTANT shall furnish all technical and professional services, including labor, material, equipment, transportation, supervision and expertise to perform all operations necessary and required to satisfactorily complete the services required in this Agreement.

2. Notice to Proceed/Completion of Services

- (a) CONSULTANT shall commence services upon receipt of a Notice to Proceed from CITY. Notice shall be deemed to have occurred three (3) calendar days after deposit in the regular course of the United States mail.
- (b) When CITY determines that CONSULTANT has satisfactorily completed the services defined in Exhibit "A," CITY shall give CONSULTANT written Notice of Final Acceptance, and CONSULTANT shall not incur any further costs hereunder. CONSULTANT may request this determination of completion when, in its opinion, it has satisfactorily completed the Scope of Work (Exhibit "A"), and if so requested, CITY shall make this determination within fourteen (14) days of such request.

3. Project Schedule

The Project Schedule is set forth in the attached Exhibit "A-1."

4. Payment of Fees and Expenses

Payments shall be made to CONSULTANT on a monthly basis as set forth in the attached Exhibit "B" entitled "Compensation Schedule." All compensation will be based on monthly billings as provided in Exhibit "B." Compensation will not be due until said detailed billing is submitted to CITY within a reasonable time before payment is expected to allow for normal CITY processing. An estimate of the percent of total completion associated with the various categories of the services shall be furnished by CONSULTANT with said billing. When applicable, copies of pertinent financial records will be included with the submission of billing(s) for all direct reimbursables. Compensation shall not exceed the amounts set forth in Exhibit "B" for each phase. In no event shall the total amount of compensation payable under this agreement exceed the sum of Four Hundred Three Thousand One Hundred and NO/100 Dollars (\$403,100.00) unless upon written modification of this Agreement. All invoices, including detailed backup, shall be sent to City of Sunnyvale, attention Accounts Payable, P.O. Box 3707, Sunnyvale, CA 94088-3707.

5. No Assignment of Agreement

CONSULTANT bind themselves, their partners, successors, assigns, executors, and administrators to all covenants of this Agreement. Except as otherwise set forth in this Agreement, no interest in this Agreement or any of the work provided for under this Agreement shall be assigned or transferred, either voluntarily or by operation of law, without the prior written approval of CITY. However, claims for money due to or to become due to CONSULTANT from CITY under this Agreement may be assigned to a bank, trust company or other financial institutions, or to a trustee in bankruptcy, provided that written notice of any such assignment or transfer shall be first furnished to CITY. In case of the death of one or more members of CONSULTANT's firm, the surviving member or members shall complete the services covered by this Agreement. Any such assignment shall not relieve CONSULTANT from any liability under the terms of this Agreement.

6. Consultant is an Independent Contractor

CONSULTANT is not an agent or employee of CITY but is an independent contractor with full rights to manage its employees subject to the requirements of the law. All persons employed by CONSULTANT in connection with this Agreement will be employees of CONSULTANT and not employees of CITY in any respect. CONSULTANT is responsible for obtaining statutory Workers' Compensation coverage for its employees.

7. Consultant's Services to be Approved by a Registered Professional

All reports, costs estimates, plans and other documents which may be submitted or furnished by CONSULTANT shall be approved and signed by a qualified registered professional in the State of California. The title sheet for calculations, specifications and reports, and each sheet of plans, shall bear the professional seal, certificate number, registration classification, expiration date of certificate and signature of the professional responsible for their preparation.

8. Standard of Workmanship

CONSULTANT represents and maintains that it is skilled in the professional calling necessary to perform the services and its duties and obligations, expressed and implied, contained herein, and CITY expressly relies upon CONSULTANT's representations regarding its skills and knowledge. CONSULTANT shall perform such services and duties in conformance to and consistent with the standards generally recognized as being employed by professionals in the same discipline in the State of California.

The plans, designs, specifications, estimates, calculations reports and other documents furnished under the Scope of Work (Exhibit "A") shall be of a quality acceptable to CITY. The criteria for acceptance of the work provided under this Agreement shall be a product of neat appearance, well-organized, technically and grammatically correct, checked and having the maker and checker identified. The minimum standard of appearance, organization and content of the drawings shall be that used by CITY for similar projects.

9. Responsibility of CONSULTANT

CONSULTANT shall be responsible for the professional quality, technical accuracy and the coordination of the services furnished by it under this Agreement. Neither CITY's review, acceptance nor payment for any of the services required under this Agreement shall be construed to operate as a waiver of any rights under this Agreement or of any cause of action arising out of the performance of this Agreement and CONSULTANT shall be and remain liable to CITY in accordance with applicable law for all damages to CITY caused by CONSULTANT's negligent performance of any of the services furnished under this Agreement.

Any acceptance by CITY of plans, specifications, calculations, construction contract documents, reports, diagrams, maps and other material prepared by CONSULTANT shall not, in any respect, absolve CONSULTANT for the responsibility CONSULTANT has in accordance with customary standards of good engineering practice in compliance with applicable Federal, State, County and/or municipal laws, ordinances, regulations, rules and orders.

10. Right of CITY to Inspect Records of CONSULTANT

CITY, through its authorized employees, representatives, or agents, shall have the right, at any and all reasonable times, to audit the books and records including, but not limited to, invoices, vouchers, canceled checks, time cards of CONSULTANT for the purpose of verifying any and all charges made by CONSULTANT in connection with this Agreement. CONSULTANT shall maintain for a minimum period of three (3) years from the date of final payment to CONSULTANT or for any longer period required by law, sufficient books and records in accordance with generally accepted accounting practices to establish the correctness of all charges submitted to CITY by CONSULTANT. Any expenses not so recorded shall be disallowed by CITY.

11. Confidentiality of Material

All ideas, memoranda, specifications, plans, calculations, manufacturing procedures, data, drawings, descriptions, documents, discussions or other information developed or received by or for CONSULTANT and all other written information submitted to CONSULTANT in connection with the performance of this Agreement shall

be held confidential by CONSULTANT and shall not, without the prior written consent of CITY be used for any purposes other than the performance of the Project services, nor be disclosed to an entity not connected with the performance of the Project services. Nothing furnished to CONSULTANT which is otherwise known to CONSULTANT or is or becomes generally known to the related industry shall be deemed confidential. CONSULTANT shall not use CITY's name, insignia or distribute exploitative publicity pertaining to the services rendered under this Agreement in any magazine, trade paper, newspaper or other medium without the express written consent of CITY.

12. No Pledging of CITY's Credit

Under no circumstances shall CONSULTANT have the authority or power to pledge the credit of CITY or incur any obligation in the name of CITY.

13. Ownership of Material

All material, including information developed on computer(s), which shall include, but not be limited to, data, sketches, tracings, drawings, plans, diagrams, quantities, estimates, specifications, proposals, tests, maps, calculations, photographs, reports and other material developed, collected, prepared or caused to be prepared, under this Agreement shall be the property of CITY, but CONSULTANT may retain and use copies thereof.

CITY shall not be limited, in any way, in its use of said material, at any time, for work associated with Project. However, CONSULTANT shall not be responsible for damages resulting from the use of said material for work other than Project, including, but not limited to the release of this material to third parties for work other than on Project.

14. Hold Harmless/Indemnification

To the extent permitted by law (including, without limitation, California Civil Code section 2782.6), CONSULTANT agrees to indemnify, defend and hold harmless CITY, its officers and employees from any and all claims, demands, actions, causes of action, losses, damages, liabilities, known or unknown, and all costs and expenses, including reasonable attorneys' fees in connection with any injury or damage to persons or property to the extent arising out of any negligence, recklessness or willful misconduct of CONSULTANT, its officers, employees, agents, contractor, subcontractors or any officer, agent or employee thereof in relation to CONSULTANT's performance under this Agreement. Such defense and indemnification shall not apply in any instance of and to the extent caused by the sole negligence, recklessness or willful misconduct of CITY, its officers, employees, agents or representatives.

15. Insurance Requirements

CONSULTANT shall take out and maintain during the life of this Agreement policies of insurance as specified in Exhibit "C" attached and incorporated by reference, and shall provide all certificates and/or endorsements as specified in Exhibit "C."

16. No Third Party Beneficiary

This Agreement shall not be construed or deemed to be an agreement for the benefit of any third party or parties and no third party or parties shall have any claim or right of action hereunder for any cause whatsoever.

17. Notices

All notices required by this Agreement shall be in writing, and shall be personally delivered, sent by first class mail with postage prepaid, or by commercial courier, addressed as follows:

To CITY: Lorrie Gervin
Environmental Services Manager
Department of Public Works
CITY OF SUNNYVALE
P. O. Box 3707
Sunnyvale, CA 94088-3707

To CONSULTANT: RMC Water and Environment
Attn: Marilyn Bailey
2290 North First Street, Suite 212
San Jose, CA 95131

Nothing in this provision shall be construed to prohibit communication by more expedient means, such as by telephone or facsimile transmission, to accomplish timely communication. However, to constitute effective notice, written confirmation of a telephone conversation or an original of a facsimile transmission must be sent by first class mail, by commercial carrier, or hand-delivered. Each party may change the address by written notice in accordance with this paragraph. Notices delivered personally shall be deemed communicated as of actual receipt; mailed notices shall be deemed communicated as of three days after mailing, unless such date is a date on which there is no mail service. In that event communication is deemed to occur on the next mail service day.

18. Waiver

CONSULTANT agrees that waiver by CITY of any one or more of the conditions of performance under this Agreement shall not be construed as waiver(s) of any other condition of performance under this Agreement.

19. Amendments

No alterations or changes to the terms of this Agreement shall be valid unless made in writing and signed by both parties.

20. Integrated Agreement

This Agreement embodies the agreement between CITY and CONSULTANT and its terms and conditions. No verbal agreements or conversation with any officer, agent or employee of CITY prior to execution of this Agreement shall affect or modify any of the terms or obligations contained in any documents comprising this Agreement. Any such verbal agreement shall be considered as unofficial information and in no way binding upon CITY.

21. Conflict of Interest

CONSULTANT certifies that to the best of its knowledge, no CITY employee or officer of any public agency interested in this Agreement has any pecuniary interest in the business of CONSULTANT and that no person associated with CONSULTANT has

any interest that would conflict in any manner or degree with the performance of this Agreement.

22. California Agreement

This Agreement has been entered into in the State of California and this Agreement shall be governed by California law.

23. Records, Reports and Documentation

CONSULTANT shall maintain complete and accurate records of its operation, including any and all additional records required by CITY in writing. CONSULTANT shall submit to CITY any and all reports concerning its performance under this Agreement that may be requested by CITY in writing. CONSULTANT agrees to assist CITY in meeting CITY's reporting requirements to the state and other agencies with respect to CONSULTANT's work hereunder. All records, reports and documentation relating to the work performed under this Agreement shall be made available to City during the term of this Agreement.

24. Termination of Agreement

If CONSULTANT defaults in the performance of this Agreement, or materially breaches any of its provisions, CITY at its option may terminate this Agreement by giving written notice to CONSULTANT. If CITY fails to pay CONSULTANT, CONSULTANT at its option may terminate this Agreement if the failure is not remedied by CITY within thirty (30) days from the date payment is due.

Without limitation to such rights or remedies as CITY shall otherwise have by law, CITY also shall have the right to terminate this Agreement for any reason upon ten (10) days' written notice to CONSULTANT. In the event of such termination, CONSULTANT shall be compensated in proportion to the percentage of services performed or materials furnished (in relation to the total which would have been performed or furnished) through the date of receipt of notification from CITY to terminate. CONSULTANT shall present CITY with any work product completed at that point in time.

25. Subcontracting

None of the services covered by this Agreement shall be subcontracted without the prior written consent of CITY. Such consent may be issued with notice to proceed if subcontract consultants are listed in the project work plan.

26. Fair Employment

CONSULTANT shall not discriminate against any employee or applicant for employment because of race, color, creed, national origin, sex, age, condition of physical handicap, religion, ethnic background or marital status, in violation of state or federal law.

27. Changes

CITY or CONSULTANT may, from time to time, request changes in the terms and conditions of this Agreement. Such changes, which are mutually agreed upon by CITY and CONSULTANT, shall be incorporated in amendments to this Agreement.

28. Other Agreements

This Agreement shall not prevent either Party from entering into similar agreements with others.

29. Severability Clause.

In case any one or more of the provisions contained herein shall, for any reason, be held invalid, illegal or unenforceable in any respect, it shall not affect the validity of the other provisions which shall remain in full force and effect.

30. Captions

The captions of the various sections, paragraphs and subparagraphs, of the contract are for convenience only and shall not be considered nor referred to for resolving questions of interpretation.

31. Entire Agreement; Amendment

This writing constitutes the entire agreement between the parties relating to the services to be performed or materials to be furnished hereunder. No modification of this Agreement shall be effective unless and until such modification is evidenced by writing signed by all parties.

32. Miscellaneous

Time shall be of the essence in this Agreement. Failure on the part of either party to enforce any provision of this Agreement shall not be construed as a waiver of the right to compel enforcement of such provision or any other provision. This Agreement shall be governed and construed in accordance with the laws of the State of California.

IN WITNESS WHEREOF, the parties have executed this Agreement.

ATTEST:

CITY OF SUNNYVALE ("CITY")

By _____
City Clerk

By _____
City Manager

RMC Water and Environment
("CONSULTANT")

APPROVED AS TO FORM:

By _____

Name/Title

City Attorney

By _____

Name/Title

SECTION FOUR

Project Understanding, Scope and Schedule



Project Understanding

The four air flotation tanks (AFT) are a vital component of the Water Pollution Control Plant's (WPCP) treatment process. Their role in removing algae from process stream is critical to the ability of the WPCP to meet its discharge requirements.

Three of the AFT's have been in operation for over 30 years and the fourth has been operating for 25 years. They all suffer from structural, mechanical, and electrical degradation from long years of hard service and are in need of reconditioning and rehabilitation to ensure their continued, reliable operation.



The RMC team's approach to the project will meet the following project goals:

- Develop consensus on the project goals with WPCP management and staff.
- Identify a rehabilitation/reconditioning plan to restore the AFT's to reliable service in keeping with the project goals.
- Identify potential methods to cost-effectively increase the performance or operational efficiency of the AFT's by incorporating modern equipment and systems into the rehabilitation.
- Design a project that can be completed within the available CIP budget.
- Implement design details to minimize the rehabilitation time for each individual AFT and reduce the overall construction period.

The following paragraphs highlight the overall approach to each project phase. This is followed by a scope of work that serves as the basis of the cost proposal, and a schedule for completing the project.

Project Definition Approach

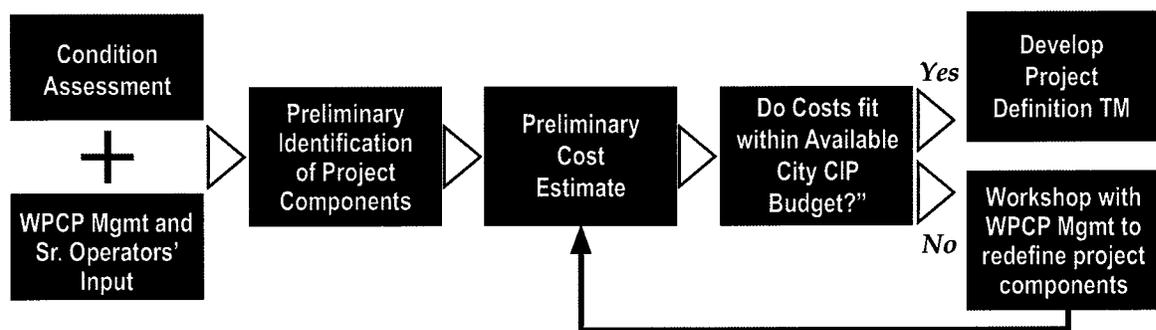
The Project Definition stage of the project will be the key to keeping the scope and cost of the project within the available budget and schedule. Reconditioning/rehabilitation projects are particularly prone to "scope creep." Therefore, in this phase of the project we will establish a clear definition of the project elements so that the subsequent final design efforts can proceed quickly and smoothly. The RMC team will use an iterative approach to provide a final project that (a) meets the WPCP management and staff expectations and (b) can be completed within the available budget and schedule.

The following are highlights of our approach to the Project Definition stage.

- **Kick-off Workshop:** A workshop with WPCP management will be held to establish communication protocols, reach consensus on project goals including desired service life of the AFT's after rehabilitation, identify existing sources of information, and understand the previous work completed on the AFT's.
- **Condition Assessment:** Experienced RMC and TJC engineers will conduct condition assessments on each AFT and the supporting equipment to identify the mechanical, structural, seismic, and electrical/I&C

upgrades that would be required to restore the AFT's to essentially "as-new" condition. For the purposes of the seismic assessment (and this proposal), AFT 4 is assumed to have been designed and constructed differently from AFTs 1, 2, and 3 and will require a separate seismic analysis.

- **Preliminary Workshop with WPCP Staff and Management:** Concurrently with the Condition Assessment, we will conduct a workshop with WPCP management and senior operators to obtain their initial input on suggested project components, methods for integrating the new AFT controls to the plant's existing controls, level of staffing and automation considerations, and construction phasing options. The goal of the preliminary workshop is to brainstorm with WPCP staff and identify all possible project components so that they can be included in the preliminary list of project components for evaluation.
- **Preliminary Project Identification:** Based on the results of the Condition Assessment and the initial WPCP Workshop our team will develop a preliminary list of project components for rehabilitation of the AFT's. Over and above simply "replacing in kind", our team will also identify methods to cost-effectively optimize the AFT operation and performance to take advantage of advances in the industry in the 30 years since the AFT's were constructed. For example, selection of improved motor efficiencies, increased automation, PLC's as opposed to hard-wired relays, type of pressurization equipment, and method of polymer addition can all reduce the power, chemical and labor costs required for operation. For each item on the list of candidate project components we will also develop an associated line item cost.
- **Project Refinement to fit CIP Budget Constraints:** It is possible that the preliminary list of project components will exceed the available CIP budget. To prioritize the list of project components we will conduct an iterative workshop with the WPCP management and steering committee to compare the line item costs of the project components to the CIP budget and determine which project components will be implemented. The RMC team will then revise the cost estimate based on the results of the workshop and will again compare it to the available budget. This process will continue until the resulting project definition and costs are satisfactory to the WPCP management team.
- **Preparation of Project Definition TM:** After consensus has been reached on the project components, we will prepare the Project Definition TM for the recommended components. The TM will serve as the Basis of Design for the subsequent final design stages.



An iterative approach to project definition reconciles project goals and budget.

Final Design Approach

The final design will include submittals at the 30,60, 90, and 100% completion points. During the final design phase we will identify methods to reduce the construction time. Because the tanks will be rehabilitated sequentially one at a time, controlling the required down-time for each tank will reduce the overall schedule and cost, and decrease the operational risk of operating with a tank out of service. We will also identify methods to reduce costs without jeopardizing project performance. For example, replacing the starters but reusing the existing MCC cabinets will save cost and reduce the required construction time.

Each of the final design submittals will include an updated cost estimate and implementation schedule. We will hold workshops with the WPCP staff at the 30, 60, and 90% submittals to discuss their review comments.

Scope of Work

The cost proposal (in separate envelope) is based on the following scope of services.

Task 1 | *Project Definition*

Subtask 1.1 Kick-off Workshop

We will conduct a workshop with WPCP management and staff to reach consensus on project goals and identify existing sources of information.

Deliverables: Workshop agenda and meeting minutes

Subtask 1.2 Condition Assessment

The RMC team will evaluate the condition of mechanical, structural, electrical, and control components of the AFT process, and perform a seismic evaluation of the AFT tanks. Condition assessment of each tank will occur sequentially, one at a time, after WPCP has emptied and cleaned each tank.

Deliverables: Condition Assessments for the AFT facilities

Subtask 1.3 Preliminary Workshop

We will conduct a preliminary workshop with City management and with senior operators to obtain input to the condition assessment and identification of project components.

Deliverables: Workshop agenda and meeting minutes

Subtask 1.4 Preliminary Project Identification

The RMC team will use the results of the condition assessments and preliminary workshop to identify potential project components and to prepare cost estimates for each item.

Deliverables: Preliminary project component list and associated cost estimates

Subtask 1.5 Project Refinement Workshop

We will present the results of the Preliminary Project Identification at a workshop with WPCP management. The goal of the workshop is to compare the estimated costs with the available CIP budget and determine which project components will be included in the final project.

Deliverables: Workshop agenda and meeting minutes

Subtask 1.6 Project Definition Technical Memorandum

After consensus has been reached on the project components, the RMC team will prepare the draft Project Definition TM. The TM will include the following information:

- Results of Condition Assessment
- Project Goals
- Recommended Project Components
- Cost Estimate
- Implementation Schedule
- Appendix:
 - *Condition Assessments*
 - *Workshop meeting minutes*

After submittal of the draft TM and review by the City, we will conduct a review workshop with WPCP staff to discuss the City's review and obtain final review comments. We will then incorporate the comments into a final TM that will serve as the basis of final design.

Deliverables (6 copies each):

- Draft TM
- Workshop agenda and minutes
- Final TM

Task 2 | *Final Design*

The exact scope of work for final design will not be defined until after completion and approval of the Project Definition TM. Our recommendation is to review the project after approval of the final Project Definition TM and adjust the final design scope and budget based on the final recommended project. To estimate the final design budget for the cost proposal, we have made a number of assumptions as follows.

- The construction cost of the project will be approximately \$1.5 million.
- The plans and specifications will be based on the project components identified in the final Project Definition TM.
- For all review submittals, the WPCP staff will combine their review comments into single marked-up set of drawings and specifications. Whenever possible, conflicts between the WPCP internal review comments will be reconciled before the review comments are submitted to the consultant
- The bid documents will use the City's General Conditions and RMC Division 1 specifications
- The final design does not include seismic upgrade of the facilities. The need for, and the nature of, seismic upgrades cannot be determined until after the Condition Assessments are completed. If seismic upgrades are determined to be needed based on the Condition Assessments, the scope of the seismic upgrade design will be negotiated as an additional scope item.
- The existing electrical building is assumed to have adequate structural integrity and mechanical/electrical support systems. Analyses of the existing electrical building are not included.
- Project will include new controls based on programmable logic controls (PLCs) and software controls. Duplication of the existing "hardwired/relay" logic will not be required. New controls will be integrated into the plant's existing Allen-Bradley PLC network.
- All four AFTs are assumed identical for the purposes of process-mechanical-electrical-control design elements. "Typical" design approaches will be satisfactory for establishing the level of detail in the Bid Documents.
- Clear corridors are available for routing new underground electrical ductbanks to each of the ATFs from the existing electrical building.
- P&IDs will present process piping, instrumentation, and controls. Software controls implemented in PLCs will not be detailed on the P&IDs; rather written control descriptions shall be provided in the Bid Documents for communicating control system requirements.
- City will print and distribute the final bid documents.
- Consultant's scope of work does not include preparation of California Environmental Quality Act (CEQA) documentation.

Subtask 2.1 30% Design Submittal

The 30% submittal will include the following:

- Major plans showing structural and mechanical elements of the project
- Electrical single line diagrams and major electrical distribution equipment elevations
- P&IDs showing equipment tagging and flow schematics. The 30% P&IDs will include process piping, major process equipment, field instrumentation, and valves. 30% P&IDs will not include control interfaces.
- Draft specifications for major equipment

- Draft corrosion specifications including concrete lining, metallic coatings
- Draft AFT control description narratives
- Updated implementation plan that identifies required permits, time needed for permits, shutdown restrictions, and sequencing constraints
- Updated construction cost estimate

This task includes two workshops with the WPCP staff.

30% Workshop 1: At the beginning of the review period, the RMC team will give a design presentation to the WPCP staff to describe the project components, the implementation schedule, and the cost estimate.

30% Workshop 2: After the WPCP has completed their review of the 30% submittal, RMC will conduct a workshop with the WPCP staff to discuss their comments. Response to comments will be incorporated into the 60% design submittal

Deliverables (6 copies each):

- Half size copies of drawings
- Specifications, implementation schedule, and updated cost estimate

Subtask 2.2 60% Submittal

The 60% submittal will include major plans, sections, and specifications at the mid-point of design, an updated implementation schedule, and updated construction cost estimate. This submittal will also include the information required for review by the City of Sunnyvale Building Department so that their comments can be included in the 90% design submittal. After the WPCP has completed their review of the 60% submittal, RMC will conduct a workshop with the WPCP staff to discuss their comments. Response to comments will be incorporated into the 90% design submittal.

Deliverables: (6 copies each)

- Half size copies of drawings
- Specifications, implementation schedule, and updated cost estimate

Subtask 2.3 90% Submittal

The 90% submittal will include all drawings and all specifications for final review by the WPCP. It is expected that the design will be substantially complete except for incorporation of final comments from the WPCP. After the WPCP has completed their review of the 90% submittal, RMC will conduct a workshop with the WPCP staff to discuss their comments. Response to comments will be incorporated into the 100% design submittal

Deliverables (6 copies of each):

- Half size copies of drawings
- Specifications
- Project Schedule
- Engineer's estimate of costs
- Design calculations
- Structural check calculations
- List of submittals expected during construction

Subtask 2.4 100% Submittal

The 100% submittal will incorporate review comments from the 90% submittal into the final bid documents.

Deliverables:

- Full-size Mylars of all drawings (one copy)
- Camera-ready half-size drawings (one copy)
- Camera-ready specifications (one copy)
- Final Engineer's estimate of costs
- Documentation of Internal QA/QC checks
- Electronic files of drawings and specifications (.pdf format)

Task 3 | *Engineer's Services During Construction*

Services during construction will include the following implemented for those design elements included in the Bid Documents:

Subtask 3.1 Bid Phase Services

- Attendance at pre-bid conference
- Assistance to City in response to bidder's inquiries and preparation of addenda. It is assumed that the City distribute the bid documents, maintain the planholder's list, and be the initial contact for bidders' inquiries.

Subtask 3.2 Construction Phase Services

- Participation in the Pre-construction meeting
- Attendance at six construction coordination meetings
- Conduct four site visits
- Review and respond to Requests for Information
- Review shop drawing submittals

Subtask 3.3 Record Drawings

- Prepare the project record drawings based on mark-ups provided by the City's construction manager. (One set of full-size mylars, one camera-ready half-size set)

Task 4 | *Project Management*

RMC will provide project management to monitor all activities, schedule, and budgets of the project. The Project Management activities will include the following:

Subtask 4.1 Project Management

- Preparation of monthly by task and by individual.
- Preparation of monthly progress report describing specific accomplishments during the reporting period, problems encountered or anticipated, work scheduled for the next reporting period, and cost report.
- Up to four progress meetings with the WPCP, in addition to the workshops identified in other tasks, to discuss upcoming work activities, identify and resolve project issues, obtain endorsement for the design decisions.

Subtask 4.2 Quality Assurance/Quality Control

RMC and TJC will provide internal quality assurance and quality control (QA/QC) activities which will include detailed review of project design documents, drawings, and calculations. Documentation of the QA/QC activities will be included as part of the 100% submittal

Project Schedule

The project schedule of activities and deliverables through the design phase is shown on the following page. The estimated project durations of the major project stages are as follows:

Project Definition: Approximately four months after Notice to Proceed. The schedule assumes that the AFT's will be evaluated sequentially, and that there will be a one week lag time between evaluations to allow the WPCP staff to take the next basin out of service.

Final Design: Approximately six months after approval of the Project Definition TM. The schedule includes three review submittals at the 30%, 60%, and 90% completion points and includes three weeks City review period per submittal.

Construction Services: The construction period is not shown on the attached project schedule so that the details of the Project Definition and Final Design schedule can be more easily seen. The overall construction period is estimated to take 14 to 16 months which includes:

- Six months for contract award, shop drawing preparation/review/approval, and equipment fabrication
- Two months of construction per AFT, for a total of eight months
- Project punch-list, close-out, and record drawings

Project Schedule

Sunnyvale WPCP
 Air Flotation Thickener Rehabilitation
 Design Phase Schedule (Construction Phase not shown)

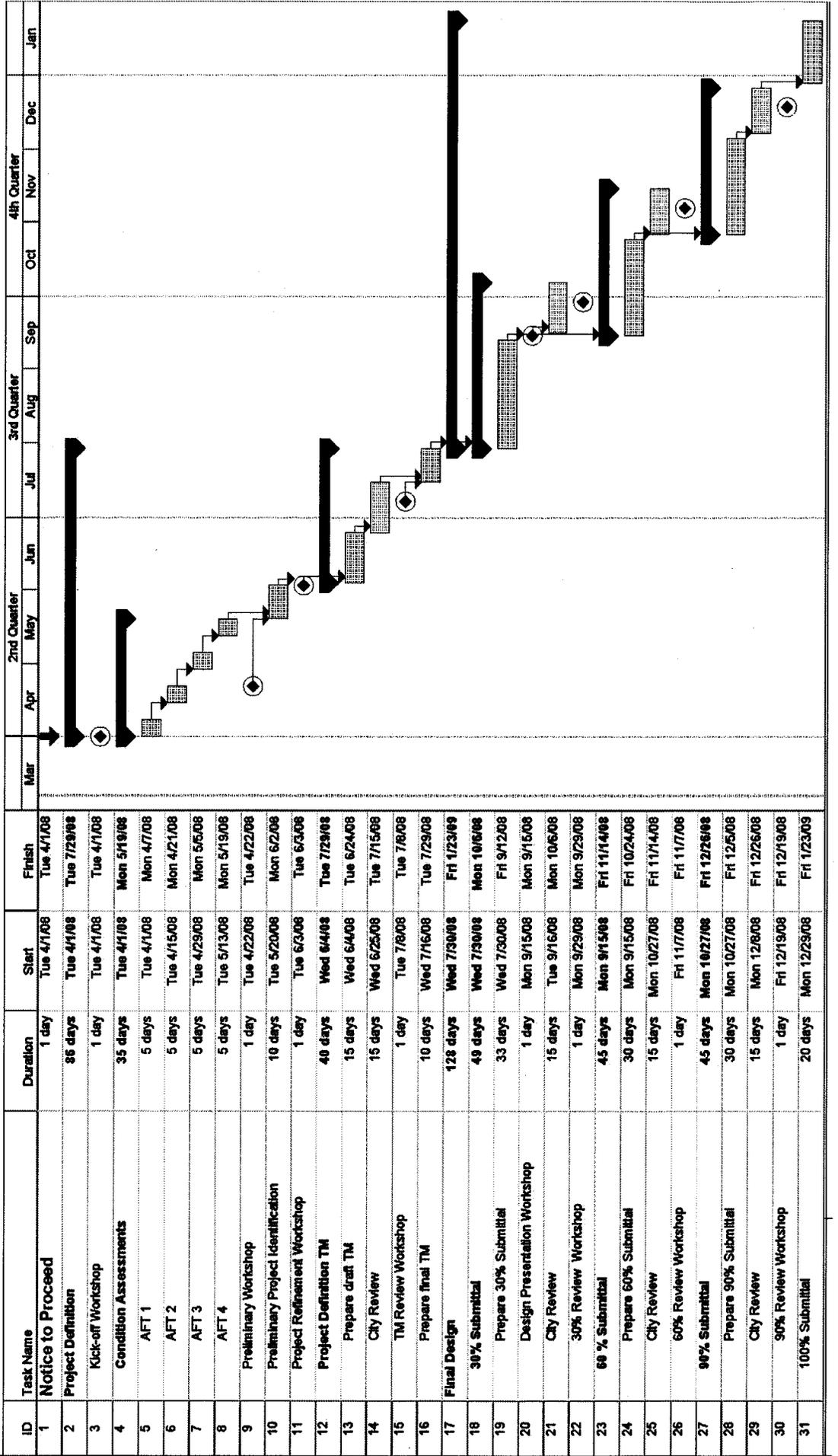


EXHIBIT "B"



Cost Proposal for Rehabilitation of Four Air Flotation Thickeners at the Sunnysvale Water Pollution Control Plant

Task	Resources											Labor Cost	Expense	Total Cost
	Design	Construction	QA/QC	Management	Professional	Construction	Professional	Construction	Professional	Construction	Professional			
1 Project Definition TM	84	0	76	44	56	72	122	64	104	16	16	\$114,500	\$2,700	\$117,200
1.1 Kick-off Workshop	4		4	4	4	4	4					\$3,900	\$300	
1.2 Condition Assessments	8		16	4	10	8	32	28	16			\$21,100	\$600	
1.3 Preliminary Workshop	16		8	8	8	8	8	10	16			\$14,600	\$300	
1.4 Preliminary Project Identification	24		16	8	10	20	30	4	24			\$24,800	\$600	
1.5 Project Refinement Workshop	16		16	8	16	16	8	4	8			\$16,000	\$300	
1.6 Project Definition TM	16		16	24	8	16	40	18	40	16	16	\$34,000	\$600	
2 Final Design	120	0	56	12	16	80	160	32	240	78	78	\$174,300	\$7,200	\$181,500
2.1 30% Submittal	32		16	4	4	20	40	8	60	15	15	\$44,200	\$1,300	
2.2 60% Submittal	32		16	4	4	20	40	8	60	100	15	\$46,800	\$1,300	
2.3 90% Submittal	32		16	4	4	20	40	8	60	100	24	\$47,700	\$1,300	
2.4 100% Submittal	24		8	4	4	20	40	8	60	40	24	\$35,600	\$3,300	
3 Services During Construction	40	0	16	0	9	18	88	33	84	0	0	\$62,300	\$4,300	\$66,600
3.1 Bid Phase Services	4				1	2	12	1	8			\$4,800	\$200	
3.2 Construction Phase Services	32		16		8	16	60	28	60			\$38,100	\$900	
3.3 Record drawings	4						16	4	16	100		\$19,500	\$3,200	
4 Project Management	60	40	0	0	14	40	0	0	0	0	35	\$37,000	\$800	\$37,800
4.1 Project Management	60										35	\$17,800	\$500	
4.2 Internal QA/QC		40			14	40						\$19,300	\$300	
Project Totals	304	40	132	58	95	210	570	129	426	436	129	\$388,100	\$15,000	\$403,100

EXHIBIT "C" INSURANCE REQUIREMENTS

CONSULTANT shall procure and maintain for the duration of the Agreement insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work by CONSULTANT, its agents, representatives, or employees.

Minimum Scope and Limits of Insurance

CONSULTANT shall maintain limits no less than:

1. **Commercial General Liability**: \$1,000,000 per occurrence for bodily injury, personal injury and property damage. If Commercial General Liability Insurance or other form with a general aggregate limit is used, either the general aggregate limit shall apply separately to this project/location or the general aggregate limit shall be twice the required occurrence limit. ISO Occurrence Form CG 0001 is required.
2. **Automobile Liability**: \$1,000,000 per accident for bodily injury and property damage. ISO Form CA 0001 is required.
3. **Workers' Compensation** and **Employer's Liability**: \$1,000,000 per accident for bodily injury or disease.
4. **Errors and Omissions** Liability Insurance appropriate to CONSULTANT's profession: \$1,000,000 per occurrence.

Deductibles and Self-Insured Retentions

Any deductibles or self-insured retentions must be declared and approved by CITY. CONSULTANT shall guarantee payment of any losses and related investigations, claim administration and defense expenses within the deductible or self-insured retention.

Other Insurance Provisions

The **general liability** and **automobile liability** policies are to contain, or be endorsed to contain, the following provisions:

1. CITY, its officials, employees, agents and volunteers are to be covered as additional insureds with respect to liability arising out of activities performed by or on behalf of CONSULTANT; products and completed operations of CONSULTANT; premises owned, occupied or used by CONSULTANT; or automobiles owned, leased, hired or borrowed by CONSULTANT. The coverage shall contain no special limitations on the scope of protection afforded to CITY, its officers, employees, agents or volunteers, except as follows: Coverage shall not

extend to any indemnity coverage for the active negligence of the additional insured in any case where an agreement to indemnify the additional insured would be invalid under Subdivision (b) of section 2782 of the Civil Code.

2. For any claims related to this project, CONSULTANT's insurance shall be primary. Any insurance or self-insurance maintained by CITY, its officers, officials, employees, agents and volunteers shall be excess of CONSULTANT's insurance and shall not contribute with it.
3. Any failure to comply with reporting or other provisions of the policies including breaches of warranties shall not affect coverage provided to CITY, its officers, officials, employees, agents or volunteers.
4. CONSULTANT's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.
5. Each insurance policy required by this clause shall be endorsed to state that coverage shall not be suspended, voided, cancelled by either party, reduced in coverage or in limits except after thirty (30) days' prior written notice by certified mail, return receipt requested, has been given to CITY.

Acceptability of Insurers

Insurance is to be placed with insurers with a current A.M. Best's rating of no less than A:VII, unless otherwise acceptable to CITY.

Verification of Coverage

CONSULTANT shall furnish to CITY original Certificate(s) of Insurance and endorsements effecting the coverage required. The Certificate(s) shall be signed by a person authorized by that insurer to bind coverage on its behalf. All certificates and endorsements are to be received and approved by CITY prior to commencement of work.