



Council Meeting: February 23, 2010

SUBJECT: Award a Sunnyvale Works! Contract for the Design of Citywide Waterline Replacements 2010 (F0902-76)

BACKGROUND

Approval is requested to award a contract to Infrastructure Engineering Corporation (IEC), in an amount not to exceed \$119,500, to design citywide waterline replacements for 2010, and to approve a 10% project contingency in the amount of \$11,950. This proposed design contract was developed in conjunction with the pre-qualification process established at the outset of the **Sunnyvale Works!** program. IEC was selected from among thirteen pre-qualified firms who submitted proposals to design the project.

DISCUSSION

Capital project 825451, Citywide Waterline Replacements, provides for on-going replacement of aged and damaged water lines by prioritizing the number of repairs, age, size, and material composition. The project standardizes the piping used with C-900 PVC (Poly Vinyl Chloride) plastic water pipe, and also upgrades pipes and fittings for seismic stability.

The waterline replacements scheduled for 2010 include approximately 4,665 lineal feet of piping in the following locations:

- Almanor Avenue from Mary Avenue to Palomar Avenue, constructing new 8" PVC water main of approximately 1,330 feet.
- Del Norte Avenue from Borregas Avenue to San Diego Avenue, replacing approximately 550 feet of existing water main with 6" PVC.
- Ferndale Avenue from Borregas Avenue to San Diego Avenue, replacing approximately 550 feet of existing water main with 6" PVC.
- Santa Coleta Avenue from Ferndale Avenue to Santa Coleta Avenue, replacing approximately 330 feet of existing water main with 6" PVC.
- Eaglewood Avenue from Borregas Avenue to 100 feet east of San Diego Avenue, replacing approximately 785 feet of existing water main with 6" PVC.
- Bartlett Avenue from Kifer Road to California Avenue, replacing approximately 1,120 feet of existing water main with 6" PVC.

This contract is recommended for approval in order to design the plans and specifications necessary for construction, and to provide construction support services.

FISCAL IMPACT

Budget expenditures are available in project 825451, funded through the Water Supply and Distribution Fund.

PUBLIC CONTACT

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

RECOMMENDATION

It is recommended that Council:

1. Award a contract to Infrastructure Engineering Corporation, in substantially the same form as the attached draft Consultant Services Agreement and in an amount not to exceed \$119,500, for the design of City Wide Water Line Replacement 2010; and
2. Approve a project contingency in the amount of \$11,950.

Reviewed by:

Mary J. Bradley, Director of Finance
Prepared by: Pete Gonda, Senior Management Analyst

Reviewed by:

Marvin Rose, Director of Public Works

Approved by:

Gary M. Luebbbers, City Manager

Attachments

- A. Consultant Services Agreement

DRAFT

CONSULTANT SERVICES AGREEMENT BETWEEN CITY OF SUNNYVALE AND INFRASTRUCTURE ENGINEERING CORPORATION (IEC) FOR DESIGN AND CONSTRUCTION SUPPORT SERVICES FOR CITYWIDE WATERLINE REPLACEMENT 2010

THIS AGREEMENT, dated _____, is by and between the CITY OF SUNNYVALE, a municipal corporation ("CITY"), and INFRASTRUCTURE ENGINEERING CORPORATION (IEC) ("CONSULTANT").

WHEREAS, CITY desires to secure professional services necessary for investigation, analysis, design, preparation of construction drawings and contract specifications, consultation, services during construction and other services for a project known as Citywide Water Line Replacement 2010 (Sunnyvale Works! Project No. SVW-006); 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 Robert Weber, P.E. 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 One Hundred Nineteen Thousand Five hundred and No/100 Dollars (\$119,500.00) 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 (Where Applicable)

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: Richard Chen, Engineer
 Department of Public Works
 CITY OF SUNNYVALE
 P. O. Box 3707
 Sunnyvale, CA 94088-3707

To CONSULTANT: Infrastructure Engineering Corporation (IEC)
 Attn: Robert Weber, P.E.
 14271 Danielson Street
 Poway, CA 92064

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 after written notification of failure to pay.

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

INFRASTRUCTURE ENGINEERING
CORPORATION (IEC)
("CONSULTANT")

APPROVED AS TO FORM:

By _____

Name/Title

City Attorney

By _____

Name/Title

December 18, 2009

Mr. David Gakle
Principal Buyer
City of Sunnyvale
650 West Olive Avenue
Sunnyvale, CA 94086

Reference: Citywide Water Line Replacements 2010

Dear Mr. Gakle:

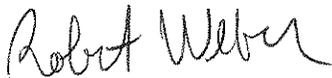
The Infrastructure Engineering Corporation (IEC) team respectfully submits this proposal to the City of Sunnyvale to provide engineering design services in support of the Citywide Water Line Replacement 2010 Project. Our team brings the experience, commitment, and enthusiasm to deliver a project that meets the City's objectives and exceeds expectations.

Highlights of our proposal include:

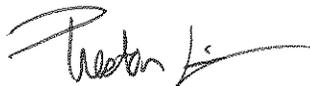
- **Thorough approach to the project issues.** We have developed a thorough project approach to provide solutions to the anticipated project issues and the level of detail as requested by the City. The detailed scope of services contains the work tasks necessary to accomplish the design in a timely and efficient manner.
- **Unmatched pipeline design expertise.** IEC is highly experienced with water distribution pipeline design for public agencies and has the knowledge and creativity to successfully execute the required tasks for successful completion of this project. Our design team has worked on a number of water utility replacement projects and is ready to bring their experience to bear on this project.
- **Ready, available project team.** Beyond the experience and capabilities, our team is ready and available to fully commit to the project now. Mr. Weber and the design team have no other major commitments and will complete your project in the shortest time possible.

Our commitment is sincere and goes beyond this proposal; we will work diligently to see the project through its successful completion. Thank you for your consideration.

Sincerely,



Robert S. Weber, P.E.
Senior Project Manager



Preston Lewis, P.E.
Principal-in-Charge

Technical Approach/Scope of Work

Statement of Understanding

IEC's understanding of the project is based on careful review of the Request for Proposal (RFP), our knowledge of the City's water system from past projects (Hydraulic Modeling and Water Master Plan) and knowledge of jurisdictional agency requirements. This groundwork provides a comprehensive understanding of the key issues anticipated for this project and enables the IEC team to promptly and efficiently execute the design engineering services proposed herein. This section describes our understanding of the project and our approach to successfully execute the proposed services based on our extensive experience in the planning, design and construction management of similar pipeline projects.



New waterline location, Almanor Avenue

Project Description

The Citywide Water Line Replacements 2010 Project will involve installation of approximately 3,335 linear feet of 6" diameter PVC water main and 330 linear feet of 8" diameter PVC water main. These quantities represent six segments as detailed below and outlined in Figures one through three.

1. Approximately 330 linear feet of new 8" new PVC water main on Almanor Avenue from Mary Avenue to Palomar Avenue.
2. Replacing approximately 550 linear feet of 6" cast iron water main with new 6" PVC water main on Del Norte Avenue from Borregas Avenue San Diego Avenue.
3. Replacing approximately 550 linear feet of 6" cast iron water main with new 6" PVC water main on Ferndale Avenue from Borregas Avenue to San Diego Avenue.
4. Replacing approximately 330 linear feet of 6" cast iron water main with new 6" PVC water main on Santa Coleta Court off of Ferndale Avenue.
5. Replacing approximately 785 linear feet of 6" cast iron water main with new 6" PVC water main on Eaglewood Avenue from Borregas Avenue to 100 feet East of San Diego Avenue.
6. Replacing approximately 1,120 linear feet of 4" cast iron water main with new 6" PVC water main on Bartlett Avenue from Kifer Road to California Avenue.



Connection point at Borregas and Eaglewood

Approach

Our approach to achieve success on this project will be to thoroughly understand the City's goals and objectives for each component of the project; to leverage the collective knowledge and experience of the IEC team founded on similar, successful projects; and to provide meticulous coordination with City staff and jurisdictional agencies in order to deliver a design that accomplishes the City's goals and objectives. Our approach is based on proven design methodologies, will build on the work performed at each milestone submittal, and will incorporate City input throughout each design phase of this vital project to deliver quality design engineering services within the critical project schedule.

Key Project Issues

Water System Operational Requirements

Having successfully designed numerous transmission and distribution pipelines and related facilities, IEC understands the importance of a detailed sequence of work to minimize the operational impacts of pipeline construction on the water system and



Fire flow will be maintained during construction

customers. The construction drawings and specifications will specifically address coordination between the contractor and the City. Requirements for the operation of water system valves to occur by authorized City personnel, and advance notification by the Contractor prior to any work requiring said operation for pipeline isolation and connections/disconnections. In addition, if necessary to maintain water service to customers and for fire protection IEC will specify highlining in the contract documents and detail requirements for such in the sequence of work.

IEC is currently performing the hydraulic modeling and water master planning for the City of Sunnyvale. Preliminary modeling indicates that fire flows may be deficient in the project location. IEC recommends the City consider upsizing to all new 8" water mains. IEC will coordinate the design with ongoing hydraulic modeling to confirm appropriate sizing of new water mains.

Trenchless Options

IEC will evaluate the possibility of utilizing pipe bursting, pipe reaming and Cured In-Place Pipe Lining (CIPP) or other trenchless options for new water main construction. However, it is anticipated that open cut will be the most economical. Because of fire flow requirements, most of the lines require upsizing and CIPP would not be an option. However, trenchless construction will be evaluated in the preliminary design report.



Project site borders Columbia Middle School



Provisions will be made for bike traffic during construction

Traffic Control

Traffic control plans will be created with regard to the pipeline alignments, the anticipated construction methods to be employed for pipeline construction, and site specific traffic circulation constraints.

The project area is composed of both commercial (Almanor) as well as residential communities. IEC will develop pipeline alignments so as to minimize impacts to nearby businesses and residents. Traffic control plans will address motor vehicle, bicycle, pedestrian, US Postal Service and SCVTA bus service operations in the project vicinity. Almanor and Borregas Avenue in particular have dedicated bike lanes. Where construction infringes on these bike lanes, the traffic control plans will make provisions for routing bike traffic around the construction. Much of the work is also situated adjacent to Columbia Middle School. As such, particular attention will also be paid to pedestrian traffic.

Potential alternatives to reduce the impact of the work on traffic circulation include the following:

Limited Daytime Work Hours – The hours of work can be specified to avoid circulation impacts primarily during rush hour periods in arterial streets with high traffic volumes. This is also an important consideration for work in the vicinity of schools. The construction hours for each day can be specified to allow unimpeded access in these

areas during the early morning and afternoon hours. The traffic volumes observed during our mid-day site reconnaissance indicate that daytime work hours can be carefully specified for key project components to reduce circulation impacts effectively.

Phasing and Sequencing – Work in the various project areas can be phased to reduce the overall circulation impacts to the community. The “progression” of construction activity should be carefully planned with regard to circulation patterns and available detour routes to avoid disorder and unnecessary traffic circulation or parking impacts. This may be achieved by describing a detailed sequence of work and Contractor responsibilities in the specifications and traffic control plans.

Temporary Lane Restrictions and Limited Soft Closures – Temporary restrictions or closures (although not expected for this project) are considered feasible in certain local streets with lower traffic volumes and where parallel detour routes exist in close proximity to lane closures. Requirements for advance notification to affected businesses by the Contractor and to maintain public access, to the extent practicable and commensurate with the critical nature of the work, will be clearly defined in the Contract Documents in order to avoid unnecessary delays or misunderstandings during construction.

Agency Coordination and Permitting

The project is expected to require coordination with City Operations Staff, and numerous utility agencies. IEC understands that the success of the project begins with proactive coordination which continues through project completion in tandem with delivering quality services. One of IEC’s biggest assets, RESPONSIVENESS, will be applied to the City’s benefit to realize success with the critical project schedule.

IEC will initiate coordination with pertinent agencies at the onset of the design phase to identify specific submittal and permitting requirements and procedures that are applicable to the project. IEC will establish lines of communication with the agencies from which permits will be required and discuss the project in detail to identify the specific permitting requirements and procedures. Preliminary plans will be submitted upon their completion to the reviewing agencies. The objective of this review is to determine the requirements and fees needed to obtain the permits. Agency conditions and requirements will be clearly addressed in the Contract Documents. This review process will be started as early as possible and revisited frequently to avoid compromising the project schedule.

Encroachment permits will be required for work performed within the public right-of-way. Encroachment permits for work within City right-of-way will be obtained by the IEC team for design investigations (geotechnical work) by submitting encroachment permit applications specific to the activity being performed.

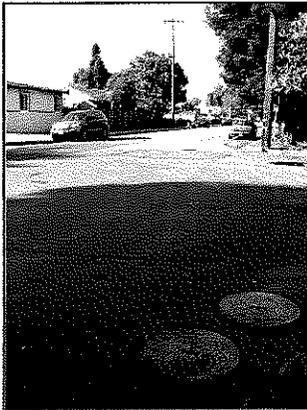
IEC will ensure the Contract Documents require the Contractor to file a Notice of Intent for construction of a small linear underground construction project, and prepare a project specific SWPPP, as applicable, in accordance with applicable Regional Water Quality Control Board requirements. We will prepare a permit work plan to determine the schedule and deliverables for each permit. IEC will implement the following approach for this project:

- Identify the project permit requirements and establish agency contact persons
- Coordinate requirements for applications and submittal documents with the project team members
- Determine permitting schedules and identify any potential constraints which may adversely impact the project schedule
- Persistently seek resolution of all relevant project permitting issues through proactive communication
- Keep the City apprised of each individual permit status

Utility Research and Data Collection

Field visits confirms various types of existing utilities in the project area: water, sewer, storm drain, and dry utilities including electric, gas, and cable for telecommunications.

The project site at Almanor is located in a business park with large service connections to gas and electrical facilities as well as communications lines as indicated by markouts observed during a recent site visit. In addition Bartlett Avenue at California Aveune has a marked high pressure gas line with standby inspection indicated at the project site. Bartlett Avenue also has overhead utilities which will be clearly indicated on the project drawings.



Gas valves at California & Bartlett

Utility research and data collection is a critical and necessary task for the successful completion of pipeline projects. Proper utility research and data collection at the onset of the project is imperative to reduce the risk of potential claims or unexpected conditions during construction. IEC adheres to a methodical utility research program for every design project that begins upon receipt of the Contract and continues through completion of final design. We have successfully designed a multitude of pipeline replacement and new construction projects using these utility research procedures and have an excellent track record of avoiding conflicts with existing utilities. Our utility research procedure consists of the following:

- Upon authorization by the City, we will contact USA North to obtain a pre-planning request which provides a listing of existing utility agencies in the project areas. This process is now automated via the internet for added speed and efficiency.
- We will establish one point of contact in the Design Team that will serve as “Project Utility Coordinator”. This individual will be responsible for tracking and documenting utility requests and responses throughout the project.
- From the pre-planning list provided by USA North, we will contact utility agencies in or around the proposed work area to establish contact information and lines of communication.
- Each utility agency is mailed a “Utility Notice of Planned Improvements” to formally request their system maps and record drawings. The initial request is mailed via Certified Mail-Return Receipt Requested. This first request is general in nature and will include preliminary alignments and facility locations.
- Upon receipt of utility information, the Project Utility Coordinator will review it for responsiveness to our request and for completeness. Follow up phone calls or in-person visits to agencies will be performed as necessary.
- Existing utilities of record are drafted into the design drawings, followed by

development of proposed horizontal and vertical alignments for the water main replacements. Each agency within the pre-planning request area is then sent a set of plans for conflict checking at each submittal milestone. Comments are incorporated as necessary.

- A comprehensive field walk of the project area is conducted by experienced IEC team members to validate the accuracy of the record data, or to identify recently constructed existing features which are not shown on record drawings. Where necessary, site meetings with utility company personnel are conducted to resolve uncertainties associated with inaccurate or incomplete record drawings.
- Potholing may be recommended (as an additional task) to obtain actual field data for key utility crossings or parallel utilities of interest.
- The process is documented and tracked at each step. Agencies are sent plans at each milestone submittal regardless of whether or not conflicts exist or conflicts have been resolved to comprehensively address potential changes in alignments, existing utility record data, or agency review personnel.

Utility Potholing

Based on the nature of the record drawing information for existing water facilities IEC recommends potholing during design to determine the depth of existing water facilities at connection points. IEC will prepare a pothole plan for City Review and approval. Potholing is assumed to be performed by City crews. In addition, potholing will be specified to be performed by the construction contractor for all crossing locations as part of project implementation. Pothole locations and depths will be shot by the surveyor (10 potholes).

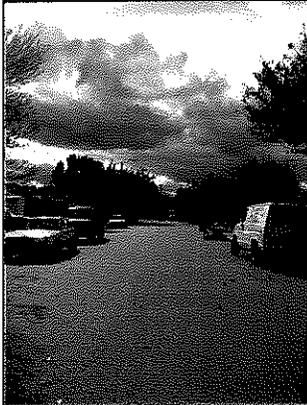
New Pipeline Alignments

Horizontal alignments contemplated for the new or parallel pipelines will be primarily governed by adequate separation from existing utilities, the locations of existing improvements, and the relative locations of the proposed water main alignments within traffic lanes. Horizontal alignments will be designed with the intent of minimizing traffic impacts during construction and maintaining required horizontal separation. Vertical alignments will be primarily governed by minimum pipeline cover requirements, connection points to existing water mains, and the elevations of existing utilities which cross the new water mains.

IEC will provide detailed attention to the utility separation requirements of the California Department of Public Health, the City of Sunnyvale, and other utility agency criteria. Existing utilities along the proposed alignments will be thoroughly researched, and depicted on the 60% submittal drawings for City review.

Connections to Existing Facilities

IEC will review available record drawings and conduct field visits to evaluate the optimum locations for connections and the associated sequence of work. IEC will assess the impact on existing water mains, coordinate with City staff during project design on City policies and preferences for proposed alignments, and will clearly identify the requirements for the connections in the Contract Documents. The project specifications and plans will clearly define the division of work and responsibility for operating existing valves, isolating existing pipelines, and draining the pipelines, if necessary, to perform the connection work.



Community impacts will be minimized

Community Impacts

The project is located within both in commercial and residential areas and adjacent to Columbia Middle School for part of the proposed alignments. IEC will specifically address provisions to reduce the impacts of the project to the community to the maximum extent practicable through careful planning and design and coordination with the City and adjacent institutions. This will be considered an essential component of the Contract Documents to reduce the impact of construction on the community. In addition, IEC will provide the necessary support to the City by attending meetings, providing project information updates, and preparing memoranda and exhibits to depict the proposed pipeline alignments.

Geotechnical Conditions

IEC has partnered with a local geotechnical firm, Clark Geotechnical, to conduct a geotechnical investigation specifically tailored to evaluate the pertinent design criteria and to evaluate the feasibility of the anticipated construction methods. Clark Geotechnical will perform borings and will prepare a detailed report containing a summary of the field and laboratory test results and recommendations regarding subsurface soil and groundwater conditions; excavation characteristics; trench slopes and/or shoring; pipeline bedding and backfill; pipeline support and thrust blocks; structural pavement sections and pavement reconstruction criteria; and other pertinent parameters necessary to support the design.

Environmental/CEQA Documentation

We assume the project will be categorically exempt for purposes of compliance with the California Environmental Quality Act (CEQA) IEC will prepare required CATEX forms to be filed directly by City staff. IEC will evaluate, through the use of a database report, the possibility of contaminated soil in the project area and will include language in the contract documents regarding handling of contaminated soil as applicable.

Site Restoration

Existing pavement in the project area appears to be in generally good condition. The pavement may undergo distress resulting from pipeline construction. The performance of pavement repair during pipeline construction can be influenced by the condition of the adjacent pavement. This is a recognized standpoint for contractors that dispute claims regarding premature failure of pavement repairs which may have actually been caused by substandard pavement repair work.

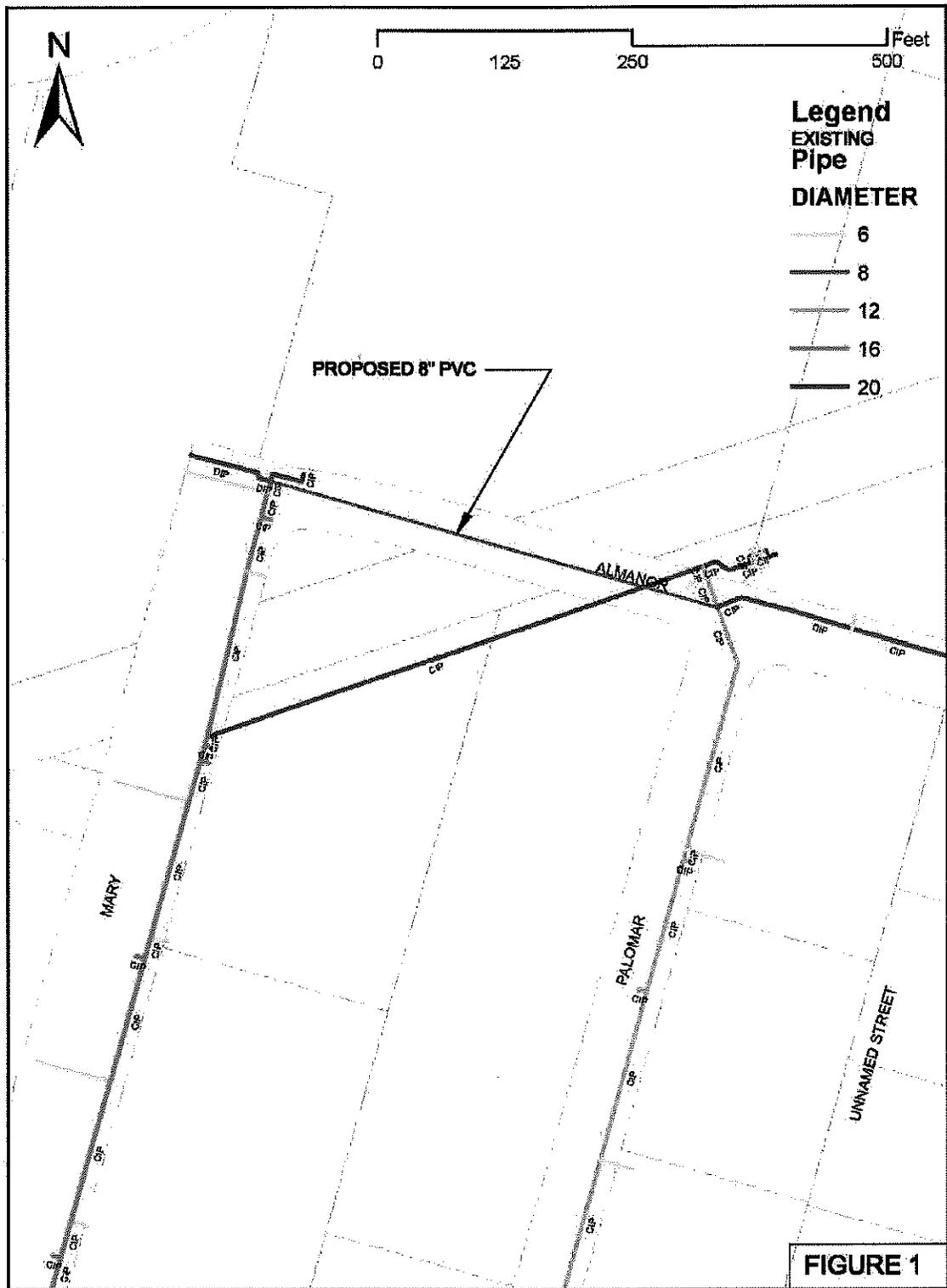


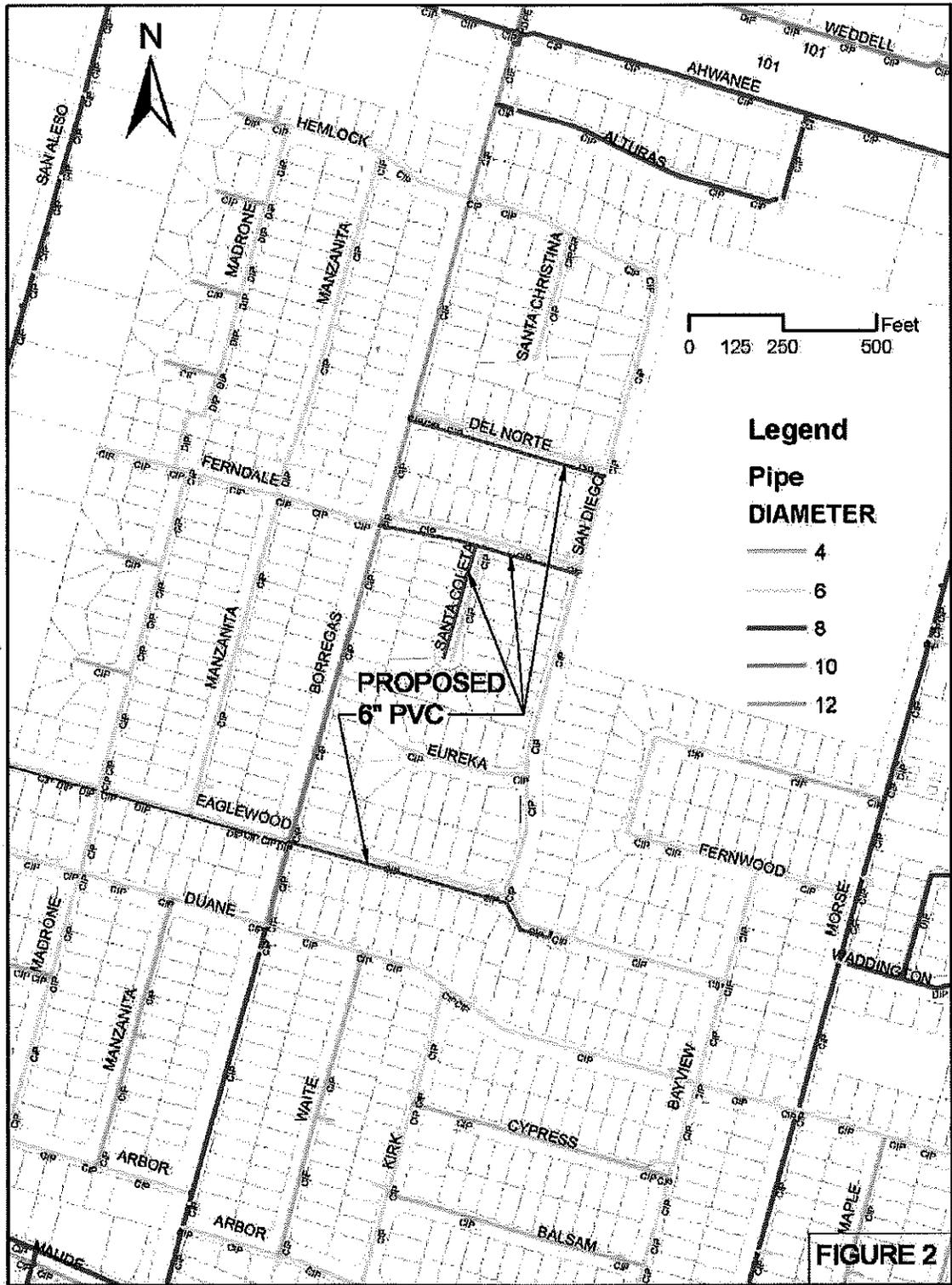
Pavement will be restored to pre-project conditions

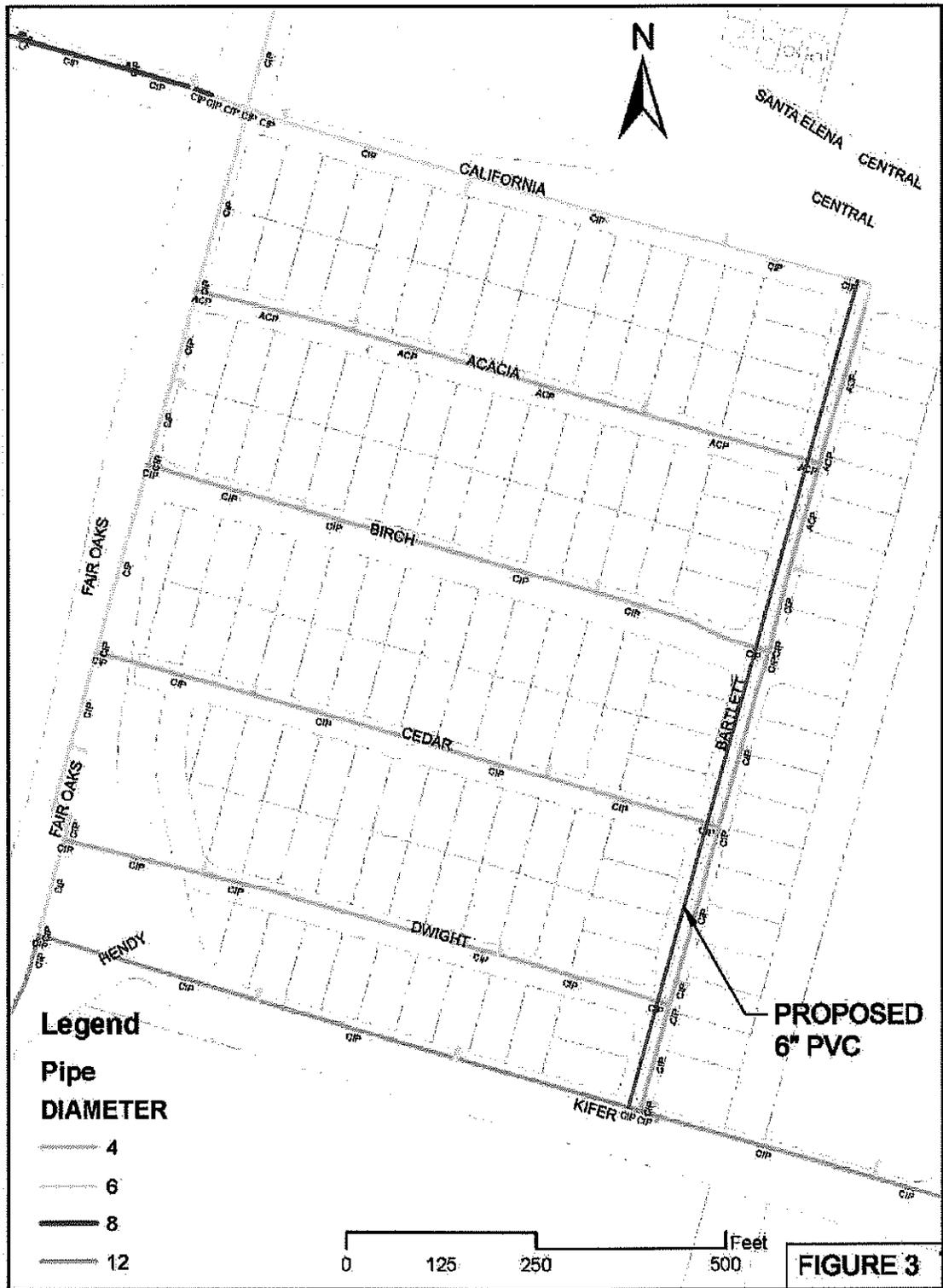
Awareness of this issue warrants detailed special provisions to address pre-construction pavement condition assessments and quality reconstruction standards in order to substantiate the City's position in the event of poor pavement repair performance caused by substandard construction or damage by the contractor's operations. Restoration of the project site to pre-project conditions will require a detailed record of the conditions and locations of existing improvements. Detailed site surveys and photographic and video documentation of existing improvements will be utilized to establish a baseline for site restoration requirements. Pavement repair objectives and limits will be established in collaboration with City staff and will be clearly shown or described in the Contract Documents.

IEC will also indicate traffic loops that are visible in the field and may be damaged by construction and indicate the replacement of such traffic loops as necessary.









Management Approach

Equally important as the technical skills of the project team is our ability to effectively manage the project. Our management approach is designed to accomplish two goals. First is to control and manage the project contract, budget, and schedule. The second is to make it easy for the City to manage IEC. The first goal is accomplished by having project management procedures in place and executed at the onset of the project. The second goal is accomplished by our commitment to deliver on the expectations, requirements, and procedures of the City. If selected for this project, we will quickly execute a Professional Services Agreement and provide certificates that meet the City's insurance requirements. Prior to submitting invoices to the City they will be reviewed for accuracy and format and signed by the Project Manager. We have effectively managed various large and small projects over long distances with excellent results. The combination of local talent provided by our subconsultant partners along with IEC's ability to do the work will provide for a smooth and efficient project.

Our project management procedures are designed to not only control and track the project but also to ensure that the City's project expectations are fully met. Key highlights to our project management approach include the following information:

- Listen to and Understand the City's goals and objectives for this project and focus work activities to Deliver these objectives.
- Develop detailed project scope of services and fee based on City's project expectations.
- Based on the Scope of Services, develop individual work plans for project team members. Work plan tasks shall include schedules and budgets that are integrated with the overall project schedule and budget.
- Develop a detailed project schedule in accordance with City requirements and identify milestones and critical paths. In addition, we will include subconsultant schedules for key items of work such as the survey.
- Identify lines of communication between team members and the City. Provide a contact list to the City with contact numbers of both the Project Manager and the various subconsultants.
- Review and implement appropriate document management procedures to consist of established paper and electronic filing practices.
- Coordinate carefully with subconsultants to provide a unified approach to the City.
- Keep the City informed of project progress and status by preparing a Monthly Progress Report with each invoice and an updated project schedule.
- Prepare invoices in a format that is acceptable to the City and is easy to review and process by the City.
- Hold regularly scheduled progress meetings to review project status and issues.
- Implement a QA/QC plan at the beginning of the project to take advantage of our team's most experienced senior engineering staff and to address critical issues at the project on-set.
- Documentation to ensure that the project team follows through with City comments.

As with any plan, it is only effective if it is diligently executed. We will hold regularly scheduled progress meetings both internally and with the City to review project progress, schedule, budget, and project issues. The project schedule will be updated frequently and submitted to the City as required. Frequent communication will be held with the City throughout the project. Meeting minutes and conversation logs will be maintained to document that comments and input by the City are addressed and incorporated into the project.

Detailed Scope of Services

Phase I – Preliminary Engineering

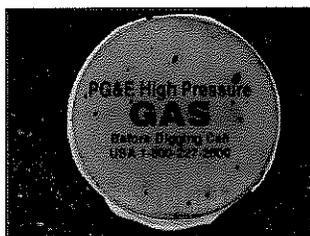
Task 1 – Project Management and Administration

IEC will provide overall project management and administration for the duration of the project.

1.1 Project Administration: IEC will prepare a detailed project schedule with tasks, durations and milestones and will review and update the schedule monthly for the duration of the project. IEC will also provide progress reports to the City at each stage of design completion.

1.2 Meetings: IEC will schedule progress meetings with the City and appropriate subconsultants at various stages of the project including a Design Kick-off Meeting, 60% Design Presentation/Meeting, and the 99% Design Meeting. The Design Kick-off Meeting will be held prior to the start of work in order to discuss the scope of work, the City's goals for the project, and the anticipated work plan, obtaining permits, and designing the pipelines. IEC will also schedule monthly progress meetings and weekly telephone conferences to keep the City informed of the project status and to discuss outstanding issues. IEC will prepare agendas and minutes for each meeting.

1.3 Coordination: IEC and appropriate members of the design team shall meet and coordinate with agencies and/or groups that either have jurisdiction, oversight, or interest in the project.



Marker on California Avenue

Task 2 – Data Collection & Utility Coordination

IEC will compile and review available documentation, reports, utility plans, record drawings, and survey records for the proposed pipeline alignments. It is anticipated that information will need to be obtained from agencies including but not limited to the City, gas, electric, phone and cable companies, and other agencies having utilities within the pipeline corridor.

Task 3 – Design Survey and Topography

Sandis will obtain aerial photography for the proposed pipeline alignments. Aerial base mapping will be prepared with 1-foot contour intervals, at 1"=20'. Horizontal and vertical datums shall be NAD83 and NGVD29 as requested by the City. Easements, right-of-way, and property lines will be mapped per record information. Where accessible, rim and invert elevations of storm drains and sanitary sewers (if present) and any other existing structures will be field surveyed. Upon receipt of the survey and evaluation of the proposed horizontal alignment, potential easement and right of way issues will be brought to the City's attention. Although not part of this proposal, the

acquisition of easements and right of way document preparation can be handled as an additional service if necessary.

Task 4 – Geotechnical Investigation

The Geotechnical Investigation scope of work includes the following:

- Perform a desktop geotechnical survey of the project location.
- Coordinating with the City, preparing traffic control plans, and submitting encroachment permit applications prior to drilling test borings. It is assumed that fees associated with an encroachment permit will be waived by the City.
- Contacting USA North to mark out existing utility lines.
- Drilling up to three (3) exploratory test borings ten feet deep. Boring depths may be shallower than planned if drilling refusal in rock is encountered.
- Collect soil samples at five foot intervals or lithologic changes.
- Performing laboratory tests of materials encountered in the test borings.
- Preparing a final report with conclusions and recommendations regarding geotechnical parameters for pipeline design and construction.

The geotechnical investigation will be developed as an integral part of the design of the proposed facilities and will evaluate subsurface conditions that will influence bearing capacities, expansiveness and settlement potential. The level of effort involved will be sufficient to recommend over-excavation, backfill compaction, corrosion protection, seismic and other special design requirements, and provide design criteria for recommended pipe bedding and pavement design.

Task 5 – Permit Work Plan

IEC will evaluate and confirm permit application requirements and prepare permit applications for applicable permits in accordance with the provisions of the Request for Proposal. We have assumed that permit application or processing fees will be paid directly by the City.

Task 6 – Preliminary Design Package

IEC will prepare a preliminary design report to evaluate the suitability of the project to trenchless applications, describe the anticipated pipeline alignments, operating pressures and materials recommendations, permitting requirements, construction cost, and construction schedule. The preliminary design report will be submitted to the City in draft form for review and comment, and following incorporation of City comments, will be finalized and six (6) final copies provided. Also included in the preliminary design package will be a cover sheet, plan sheets with base mapping and preliminary alignments for the water main replacements and preliminary technical specifications with recommended revisions to special specifications.

Phase II – Final Design

Task 7 – Prepare Plans, Specifications, and Estimates

IEC will prepare the plans, specifications, and construction cost estimate for approximately 1330 linear feet of 8" PVC water main and 3356 linear feet of 6" PVC water main including detailed design of connections to the existing water system, and design for the crossing of existing utilities. Also included in this scope will be the design of

temporary or permanent utility relocations, as required, of existing sewer or water utilities in conflict. The final deliverable of this task will be bid ready plans and contract documents using the latest City format. In addition, an engineers' cost estimate will be prepared at each milestone submittal. The following sheets are anticipated to comprise each set of project plans:

- Title sheet (1)
- General Notes/Legend and Abbreviations/Key Map (2)
- Pipeline Plan and Profile (10)
- Connection Details (2)
- Traffic control Plans (3)

IEC will utilize the City's front end documents and will prepare the CSI-format technical specifications using City standards where applicable. IEC will prepare milestone submittals at the 60%, 99% and bid-ready levels for the City's review and in accordance with the provisions of the RFP. Progress submittals will consist of five (5) copies of draft specifications (including engineers' cost estimate), and five (5) sets of full-size plans and one digital copy. Submittals will be provided one week prior to the design meetings.

7.1 60% Package, Proposed Pothole Plan: The 60% complete project plans will be prepared and submitted to the City for review with the proposed Potholing Plan.

7.2 Potholing: After the City has reviewed the 60% package and comments have been incorporated, IEC will finalize the Potholing Plan, coordinate with utility companies to have existing utilities marked out, and provide information to the City for City crews to perform potholing. Sandis will then survey the pothole locations (up to 10 potholes).

7.3 Quality Assurance/Quality Control: This will consist of incorporating comments from the City and other relevant agencies or utility companies and advancing the 60% design to the 99% design level. Prior to submitting the 99% package to the City, an internal quality review will be performed by the Design Team's Quality Assurance/Quality Control Manager to confirm technical accuracy, coordination of disciplines, and correct drafting conventions.

7.4 99% PS&E: Comments from the internal quality review and constructability review will be incorporated into the plans and specifications and the 99% complete plans, specifications, and Engineer's estimate of probable construction cost will be submitted to the City for review and comment. This design submittal will include annotation of the pipeline alignment and appurtenances, calculations, catalog sheets for items incorporated in the design, and traffic control plans and encroachment permit application.

7.5 Bid Package: Within two weeks following the 99% design meeting in which City comments are received, we will incorporate final comments and prepare the bid package. The bid package shall consist of a complete set of plans, stamped and signed on each sheet by the Engineer of Record and a complete set of technical specifications stamped and signed on the table of contents sheet by the Engineer of Record. The bid package shall also include complete revised Special Provisions and reviewed Supplemental

General Provisions and bid instructions including: a final bid schedule, a final Engineer's Construction Cost Estimate in the form of the Bid Schedule, a final list of submittals and a final list of Information Available to Bidders with disclaimer. A reviewed City's Standard Construction Contract with completion of blanks that are determined by the work, a certification of Peer Review and a digital copy of all work products and supporting work shall also be included in submittal of the bid package.

Phase III – Bid and Construction Phase

Task 8 – Bid Phase Services

IEC will provide bid phase services to support the project consisting of:

- **Attendance at Pre-Bid Meeting:** The IEC project engineer will attend the pre-bid meeting and prepare and issue meeting minutes to the City and attendees.
- **Preparation of Addendum:** IEC will prepare addenda for the project to clarify or respond to questions about the Contract Documents.
- **Bid Review and Recommendation for Award:** Upon receipt of bids by the City, IEC will review the bids for responsiveness and provide a written recommendation for award.

Task 9 – Construction Phase Support Services

A. Construction Meetings

IEC will attend the pre-construction meeting, one construction progress meeting and one field review. IEC will prepare and distribute minutes of construction meetings

B. Submittal Review

IEC will review up to twenty (20) submittals and five (5) re-submittals for each project including reviewing proposed substitutions for conformance to drawings and technical specifications, as necessary. Submittals will be reviewed within seven days of receipt. Submittal review comments will be transmitted to the City electronically.

C. Respond to RFI's

Once a contractor is selected by the City and a contract is awarded, IEC will respond to up to ten (10) Contractor Requests for Information (RFI's). We will provide written responses to submitted RFI's within 24 hours of receipt, with responses submitted electronically to the City.

D. Change Order Evaluation

IEC will review up to (3) change order requests submitted by the Contractor. This will include a letter to the Contractor and direction to the City to give the construction management staff.

E. Final Inspection

IEC will participate in the final inspection and development of the punch lists.

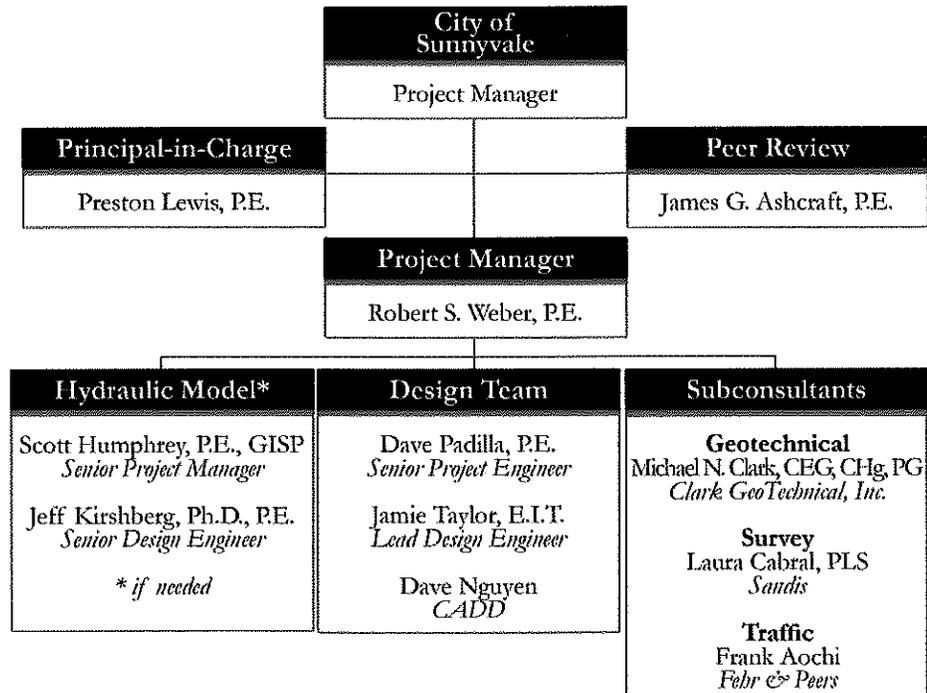
F. Record Drawing Preparation

Final record drawings will be prepared based on incorporating the Contractors redlines.

Project Team

The key to a successful project is the experience and commitment of the project team members. The team we have assembled for this project has successfully completed similar assignments working together on past projects. All of the team members will integrate seamlessly to provide a well coordinated effort.

This section identifies each of the team members and the project team organization. Below is the organizational chart, which depicts the project team members and their roles as part of the Citywide Water Line Replacements 2010 - Location One project.



Project Manager

Mr. Robert Weber, P.E. is an experienced project manager who has worked in the water/wastewater/recycled water field for his entire career. He will lead the project team and will be the City's single point of contact. Rob has extensive pipeline project experience including the following relevant projects:

- I-215 Segments 1, 2, and 3 Water Main Relocations for the San Bernardino Municipal Water Department
- Sleepy Hollow Water System Improvements for the City of Chino Hills
- Unit X Pipelines for the Olivenhain Municipal Water District
- Tait Street Waterline Replacement for the City of Oceanside
- Group Jobs 530/530A for the City of San Diego
- Gordon Hill Pipeline Replacement for Valley Center Municipal Water District
- Osborne Street Aqueduct Relocations for the City of Oceanside

Mr. Weber's project success based on his ability to understand the client's needs and objectives and translate them into actions during execution of the project. He prides himself in involving the client in the project, and ensuring the technical staff understands the critical issues of the project. His engineering decisions and designs are based on careful considerations of project needs and specific site characteristics. His dedication to quality effectively manages project risks and controls construction and operational costs.

Senior Project Engineer

For more than 13 years, **Mr. Dave Padilla, P.E.** has served as Project Manager and Project Engineer focusing on municipal infrastructure. He has extensive experience in capital improvement projects for municipal water districts and municipalities encompassing water and recycled water pipelines, reservoirs, street improvements and flood control infrastructure. Mr. Padilla has prior experience working with the City and understands City design preferences. Examples of Mr. Padilla's recent pipeline experience includes the following:

- Fortuna Ranch Road Pipeline for Olivenhain Municipal Water District
- Mission San Luis Rey Waterline for the City of Oceanside
- Osborne Street Aqueduct Relocations for the City of Oceanside
- Phase I Recycled Water Transmission Main for the Lake Arrowhead Community Services Department (SRF Funded project)
- Carmel Valley Recycled Water Pipeline for the City of San Diego Water Department

As Project Engineer, Mr. Padilla will be interfacing with various project team members and subconsultants on a day-to-day basis and will be the Lead Project Engineer.

Peer Review

Mr. James G. Ashcraft, M.S.C.E., P.E. has more than 32 years of experience in the planning, design and construction of water, wastewater and water reclamation systems, including treatment plants, pump stations, force mains and water distribution pipelines. His experience includes several large pipeline projects, design-build projects for treatment plants, desalination systems and pump stations. He has also been in responsible charge of several groundwater management studies, including the investigation and development of resource recovery programs for groundwater basins.

Principal-in-Charge

Mr. Preston Lewis, P.E. brings over 25 years of experience working exclusively on public agency projects throughout California. Mr. Lewis has a strong technical and project management background and is a recognized expert in planning, designing, and construction management of public water and wastewater infrastructure. Mr. Lewis has 25 years of experience in a wide variety of projects from storage, conveyance, distribution, pumping, groundwater wells to treatment. The success that Mr. Lewis has achieved can be attributed to balancing complicated operating/maintenance issues with complex engineering design challenges, while simultaneously gaining interagency approvals and community acceptance. As a principal engineer at IEC, he is responsible for quality assurance and personally performs technical reviews to ensure complete

and accurate work according to industry standards. Mr. Lewis continually illustrates a genuine interest and caring concern on his projects, and repeatedly demonstrates his responsiveness to his clients.

Lead Design Engineer

Ms. Jamie Taylor's background ranges from engineering tasks including, quantity takeoffs, preparing engineering plans, cost estimates, specifications and engineering calculations and was the lead design engineer for the 36-inch diameter Jamacha Road pipeline project which consists of approximately 5 miles of pipeline through various jurisdictions and conditions. Her design experience includes horizontal and vertical pipe alignment design, engineering calculations and utility research. She has extensive experience preparing plan and profile in AutoCAD. Ms. Taylor has experience working with numerous Cities and Water Districts within California. Ms. Taylor is also very active in the engineering community, and belongs to several professional organizations.

CAD Designer

Mr. David Nguyen's experience includes lead CAD design roles on the Gordon Hill Road Pipeline Replacement, Lake Arrowhead Recycled Water System Phase 1, San Bernardino I-215 Segment's 1, 2, and 3 Water Main Relocations, and several related projects. He has experience working in Microstation, AutoCAD and Agetek. He also has extensive experience in Land Desktop Development CADD packages.

Geotechnical Subconsultant

Mr. Michael Clark, P.G., C.E.G. is a Principal Engineering Geologist and Principal Hydrogeologist with over 30 years experience in geologic mapping and reconnaissance in most of the San Francisco Bay Area and California. He is proficient in using a wide variety of investigative techniques including field mapping, aerial photographic interpretation, geophysical surveys, groundwater pumping tests, and exploratory trenching and drilling. His responsibilities include identification of potential geologic hazards, groundwater basin analysis and source development, well design and well construction over sight, and technical support during site development.

His expertise includes hydrogeologic studies; well sighting and design; landslide evaluation, mitigation studies and repair; geologic and geomorphic mapping and exploration; geophysical survey design, implementation and interpretation; site feasibility studies for commercial, residential, and civil developments; engineering geologic evaluations involving erosion, slope stability; and grading monitoring for engineering geologic/geotechnical mitigation projects.

Mr. Clark has performed geologic peer review for the Cities of San Ramon, Fairfield, San Mateo, El Cerrito, Gilroy and the Counties of Alameda, Santa Clara and Monterey among others. He was requested by the County of Alameda to revise the boundaries of the Alquist-Priolo Earthquake Fault Zone for the Hayward fault and established an interim study zone at the County's request until the State of California could provide an updated zonation.

Survey Subconsultant

Ms. Laura Cabral, PLS has over 23 years of surveying experience for utility improvements and replacement projects. Laura's experience provides her with an understanding of the balance between surveying and engineering needs. Her expertise is further enhanced by her active participation in the development of the Graham Reservoir in Mountain View and the Campus Reservoirs at the Sonoma State University. Laura's hands-on familiarity with the region, combined with her experience in leading survey projects, make her an invaluable asset to this team.

Traffic Control Subconsultant

Mr. Frank Aochi has over 25 years of experience in traffic engineering design services, 11 years with Fehr & Peers. He has managed and designed various traffic engineering projects throughout California and Nevada including traffic signal, signal interconnect, signing and striping design for both public agencies and private companies. Frank's professional experience includes working five years in the Traffic Engineering Division for the City of Sunnyvale and three years for the City of Palo Alto.

EXHIBIT "A-1"

CITY OF SUNNYVALE
CITYWIDE WATER LINE REPLACEMENTS 2010
PROJECT SCHEDULE

ID	Task Name	Duration	Start	Finish	Qtr 1, 2010			Qtr 3, 2010			November	January			
					March	April	May	July	September	October					
1	CITYWIDE WATER LINE REPLACEMENTS 2010	245 days	Mon 3/1/10	Fri 2/4/11	[Gantt bar spanning from 3/1/10 to 2/4/11]										
2	PHASE I - PRELIMINARY ENGINEERING	100 days	Mon 3/1/10	Fri 7/16/10	[Gantt bar spanning from 3/1/10 to 7/16/10]										
3	Task 1 - Meetings and Project Mgmt	100 days	Mon 3/1/10	Fri 7/16/10	[Gantt bar spanning from 3/1/10 to 7/16/10]										
4	Kickoff Meeting/Notice-to-Proceed	0 days	Mon 3/1/10	Mon 3/1/10	◆ 3/1										
5	Prelim Design Review/Progress	0 days	Mon 4/26/10	Mon 4/26/10	◆ 4/26										
6	60% Design Review/Progress	0 days	Fri 5/28/10	Fri 5/28/10	◆ 5/28										
7	99% Design Review/Progress	0 days	Tue 6/29/10	Tue 6/29/10	◆ 6/29										
8	Bid Package Review	0 days	Fri 7/16/10	Fri 7/16/10	◆ 7/16										
9	Task 2 - Data Collection/Utility Research	2 wks	Mon 3/1/10	Fri 3/12/10	□ 3/12										
10	Task 3 - Design Survey and Topography	4 wks	Mon 3/1/10	Fri 3/26/10	□ 3/26										
11	Task 4 - Geotechnical Investigation	18 days	Thu 3/4/10	Mon 3/29/10	[Gantt bar spanning from 3/4/10 to 3/29/10]										
12	City Encroachment Permits	1 day	Thu 3/4/10	Thu 3/4/10	3/4										
13	Utility Mark-Out	2 days	Fri 3/5/10	Mon 3/8/10	□ 3/8										
14	Field Explorations	4 days	Tue 3/9/10	Fri 3/12/10	□ 3/12										
15	Laboratory Testing	1 wk	Mon 3/15/10	Fri 3/19/10	□ 3/19										
16	Analysis & Report	6 days	Mon 3/22/10	Mon 3/29/10	□ 3/29										
17	Task 5 - Permit Work Plan	3 wks	Mon 3/15/10	Fri 4/2/10	□ 4/2										
18	Task 6 - Preliminary Design Package	2 wks	Tue 3/30/10	Mon 4/12/10	□ 4/12										
19	PHASE II - FINAL DESIGN	66 days	Tue 4/13/10	Tue 7/13/10	[Gantt bar spanning from 4/13/10 to 7/13/10]										
20	Task 7 - Prepare Plans, Specs & Estimates	66 days	Tue 4/13/10	Tue 7/13/10	[Gantt bar spanning from 4/13/10 to 7/13/10]										
21	60% Design	19 days	Tue 4/13/10	Fri 5/7/10	□ 5/7										
22	City Review 60%	10 days	Mon 5/10/10	Fri 5/21/10	□ 5/21										
23	99% Design	17 days	Mon 5/24/10	Tue 6/15/10	□ 6/15										
24	City Review 99%	10 days	Wed 6/16/10	Tue 6/29/10	□ 6/29										
25	Final/100% Bid Docs/Engr. Estimate	10 days	Wed 6/30/10	Tue 7/13/10	□ 7/13										
26	PHASE III - BID AND CONSTRUCTION PHASE	138 days	Tue 7/27/10	Fri 2/4/11	[Gantt bar spanning from 7/27/10 to 2/4/11]										
27	Task 8 - Bid Phase Services	30 days	Tue 7/27/10	Tue 9/7/10	[Gantt bar spanning from 7/27/10 to 9/7/10]										
28	Advertisement	0 days	Tue 7/27/10	Tue 7/27/10	◆ 7/27										
29	Pre-Bid Meeting	0 days	Fri 8/6/10	Fri 8/6/10	◆ 8/6										
30	Addenda	10 days	Mon 8/9/10	Fri 8/20/10	□ 8/20										
31	Bid Opening	0 days	Fri 8/27/10	Fri 8/27/10	◆ 8/27										
32	Bid Review and Evaluation	5 days	Mon 8/30/10	Fri 9/3/10	□ 9/3										
33	Recommendation of Award	0 days	Tue 9/7/10	Tue 9/7/10	◆ 9/7										
34	Task 9 - Construction Phase Support Services	98 days	Tue 9/21/10	Fri 2/4/11	[Gantt bar spanning from 9/21/10 to 2/4/11]										
35	Pre-Construction Meeting	0 days	Tue 9/21/10	Tue 9/21/10	◆ 9/21										
36	Submittals	20 days	Mon 10/4/10	Fri 10/29/10	□ 10/29										
37	Construction Period/RFT's	60 days	Mon 11/1/10	Fri 1/21/11	□ 1/21										
38	Record Drawings	10 days	Mon 1/24/11	Fri 2/4/11	□ 2/4										

Project: 2010 Waterline Replacements Project Schedule.mpp
Date: Tue 2/9/10

Task	[Gantt bar]	Summary	[Gantt bar]	Rolled Up Progress	[Gantt bar]	Project Summary	[Gantt bar]
Progress	[Gantt bar]	Rolled Up Task	[Gantt bar]	Split	[Gantt bar]	Group By Summary	[Gantt bar]
Milestone	◆	Rolled Up Milestone	◆	External Tasks	[Gantt bar]	Deadline	↓

EXHIBIT B
COST PROPOSAL
CITY OF SUNNYVALE
ENGINEERING DESIGN SERVICES FOR CITYWIDE WATER LINE REPLACEMENTS 2010

Task Number	Subtask Description Summary	Classification	Principal	Sr. Project Manager	Sr. Project Engineer	Engineer III	Engineer II/CADD Operator	CM Coordinator	Word Processor	Subtask Labor-Hours	Subtask Labor Cost	Direct Cost	Subcontract	Total Cost
			Rate	\$185.00	\$180.00	\$150.00	\$117.00	\$98.00	\$90.00					
PHASE I PRELIMINARY ENGINEERING														
TASK 1	PROJECT MANAGEMENT AND ADMINISTRATION													
	Kickoff Meeting			4	4				2	10	\$1,460	\$400	\$0	\$6,160
	Project Status Reports/Coordination			2	4				2	8	\$1,100	\$0	\$0	\$1,100
	Progress/Coordination Meetings and Workshops			4	12				4	20	\$2,800	\$400	\$0	\$3,200
TASK 2	DATA COLLECTION AND UTILITY COORDINATION													
	Utility Notices				2	4			1	7	\$838	\$100	\$0	\$938
	Data Collection/Coordination			1	4	8			1	14	\$1,786	\$100	\$0	\$1,886
TASK 3	DESIGN SURVEY AND TOPOGRAPHY													
	Survey Services				2					2	\$300	\$0	\$25,883	\$26,183
TASK 4	GEOTECHNICAL													
	Geotechnical Services				2					2	\$300	\$0	\$12,078	\$12,378
TASK 5	PERMIT WORK PLAN													
	Determine Permitting Requirements			1	2	4				7	\$948	\$0	\$0	\$1,792
	Prepare Permit Applications			1	1	2			4	8	\$844	\$0	\$0	\$844
TASK 6	PREPARE PRELIMINARY DESIGN PACKAGE													
	Prepare First Draft			2	8	24	4		2	40	\$4,900	\$0	\$0	\$4,900
	Prepare Final			1	8	16	2		2	29	\$3,588	\$0	\$0	\$3,588
PHASE II FINAL DESIGN														
TASK 7	PREPARE PLANS, SPECIFICATIONS, AND ESTIMATES (P.S.&E)													
	60% Submittal			4	16	80	8		4	112	\$13,544	\$0	\$0	\$13,544
	99% Submittal			4	16	40	8		4	72	\$8,864	\$0	\$0	\$8,864
	Bid Package		4	2	8	16	4		2	36	\$4,704	\$0	\$0	\$4,704
	Peer Review			4						4	\$720	\$0	\$0	\$720
	Traffic Control Plans				2					2	\$300	\$0	\$18,270	\$18,570

**COST PROPOSAL
CITY OF SUNNYVALE
ENGINEERING DESIGN SERVICES FOR CITYWIDE WATER LINE REPLACEMENTS 2010**

Task Number	Subtask Description Summary	Classification	Principal	Sr. Project Manager	Sr. Project Engineer	Engineer III	Engineer II/CADD Operator	CM Coordinator	Word Processor	Subtask Labor-Hours	Subtask Labor Cost	Direct Cost	Subcontract	Total Cost
			Rate	\$185.00	\$180.00	\$150.00	\$117.00	\$98.00	\$90.00					
PHASE II BID AND CONSTRUCTION PHASE SERVICES														
TASK 8	BID PHASE SERVICES													\$3,256
	Pre-Bid Meeting				4				1	5	\$670	\$0	\$0	\$670
	Prepare Addenda			2	4	8			2	16	\$2,036	\$0	\$0	\$2,036
	Bid Review/Recommendation for Award			1	2				1	4	\$550	\$0	\$0	\$550
TASK 9	CONSTRUCTION PHASE SERVICES													\$12,014
	Preconstruction Meeting				4				1	5	\$670	\$0	\$0	\$670
	Progress Meeting				4				1	5	\$670	\$0	\$0	\$670
	Field Review				4					4	\$600	\$0	\$0	\$600
	Submittal Review (20 with 5 re-submittals)			4	8	16		8	2	38	\$4,652	\$100		\$4,752
	Respond to RFIs (10)			2	4	8		4		18	\$2,256	\$0		\$2,256
	Change Order Evaluation			1	2	2			2	7	\$854	\$0	\$0	\$854
	Record Drawing Preparation			2	4	4	8			18	\$2,212	\$0	\$0	\$2,212
Task Subtotal - Hours			4	42	131	232	34	12	38	493				
Task Subtotal - Costs			\$740	\$7,560	\$19,650	\$27,144	\$3,332	\$1,080	\$2,660		\$62,166	\$1,100	\$56,231	\$119,500

TOTAL NOT TO EXCEED FEE: \$119,500

Exhibit C

INSURANCE REQUIREMENTS FOR CONSULTANTS

Consultant shall procure and maintain for the duration of the contract 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 the Consultant, his 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 and \$2,000,000 aggregate for bodily injury, personal injury and property damage. 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 the Consultants Profession: \$1,000,000 per occurrence and \$2,000,000 aggregate.

Deductibles and Self-Insured Retentions

Any deductibles or self-insured retentions must be declared and approved by the City of Sunnyvale. The 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. The City of Sunnyvale, its officials, employees, agents and volunteers are to be covered as additional insureds with respects to liability arising out of activities performed by or on behalf of the Consultant; products and completed operations of the Consultant; premises owned, occupied or used by the Consultant; or automobiles owned, leased, hired or borrowed by the Consultant. The coverage shall contain no special limitations on the scope of protection afforded to the City of Sunnyvale, its officers, employees, agents or volunteers.
2. For any claims related to this project, the Consultant's insurance shall be primary. Any insurance or self-insurance maintained by the City of Sunnyvale, its officers, officials, employees, agents and volunteers shall be excess of the 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 the City of Sunnyvale, its officers, officials, employees, agents or volunteers.
4. The 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 the City of Sunnyvale.

Claims Made Coverage

If the General Liability and/or Errors & Omissions coverages are written on a claims-made form:

1. The retroactive date must be shown, and must be before the date of the contract or the beginning of contract work.
2. Insurance must be maintained and evidence of insurance must be provided for at least five years after completion of the contract work.
3. If coverage is canceled or non-renewed, and not replaced with another claims-made policy form with a retroactive date prior to the contract effective date, the Consultant must purchase an extended period coverage for a minimum of five years after completion of contract work.
4. A copy of the claims reporting requirements must be submitted to the City of Sunnyvale for review.

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 the City of Sunnyvale.

Verification of Coverage

Consultant shall furnish the City of Sunnyvale with original a Certificate of Insurance effecting the coverage required. The certificates are to be signed by a person authorized by that insurer to bind coverage on its behalf. All certificates are to be received and approved by the City of Sunnyvale prior to commencement of work.